

MATERIAL SAFETY DATA SHEET

Section 1: Product & Company Identification

Product Name: Industrial Glass Cleaner (aerosol)

Product Number (s): BD1496

Product Use: Glass cleaner

Distributed By:

Class C Solutions Group
A business of MSC Industrial Supply Co.
75 Maxess Road
Melville, NY 11747

General Information	866-438-6767 M-F 8AM – 5PM
24-Hr Emergency	800-424-9300 (US) 703-527-3887 (International)

Section 2: Hazards Identification

Emergency Overview

CAUTION: May Cause Eye Irritation. Contents Under Pressure.
Appearance & Odor: Clear liquid, ammonia odor

Potential Health Effects:

ACUTE EFFECTS:

EYE: May cause mild irritation including redness and burning.

SKIN: No adverse effects expected for a single exposure. Prolonged or repeated contact can cause irritation and defatting of the skin.

INHALATION: Inhalation of a small amount is not expected to cause health effects. Prolonged exposure may cause dizziness or throat irritation.

INGESTION: Ingestion of a small amount is not expected to cause health effects. Ingestion of a larger amount may cause irritation to gastrointestinal tract as well as more severe health effects including blood disorders.

CHRONIC EFFECTS: None known

TARGET ORGANS: By ingestion: Blood, liver, kidneys

Medical Conditions Aggravated by Exposure: Pre-existing skin or eye disorders

See Section 11 for toxicology and carcinogenicity information on product ingredients.

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Section 3: Composition/Information on Ingredients

COMPONENT	CAS NUMBER	% by Wt.
Water	7732-18-5	80 – 90
Liquefied Petroleum Gas	68476-86-8	5 – 10
2-Butoxyethanol	111-76-2	1 – 3
Ethanol	64-17-5	1 – 3
Ammonia	7664-41-7	< 1
Methanol	67-56-1	< 0.2

Section 4: First Aid Measures

Eye Contact: Immediately flush with plenty of water for 15 minutes. Call a physician if irritation persists.

Skin Contact: Remove contaminated clothing and wash affected area with soap and water. Call a physician if irritation persists. Wash contaminated clothing prior to re-use.

Inhalation: Remove person to fresh air. Keep person calm. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Call a physician.

Ingestion: Do not induce vomiting. Call a physician.

Note to Physicians: This product contains 2-Butoxyethanol which, if ingested in significant quantities, may result in red blood cell hemolysis.

Section 5: Fire-Fighting Measures

Flammable Properties: This product is not flammable in accordance with aerosol flammability definitions.

Flash Point: None	Upper Explosive Limit: ND
Autoignition Temperature: 446°F / 230°C	Lower Explosive Limit: ND

Fire and Explosion Data:

Suitable Extinguishing Media: Use extinguishing agents appropriate for surrounding fire.

Products of Combustion: None

Explosion Hazards: Aerosol containers, when exposed to heat from fire, may build pressure and explode.

Protection of Fire-Fighters: Firefighters should wear self-contained, NIOSH-approved breathing apparatus for protection against suffocation and possible toxic decomposition products. Proper eye and skin protection should be provided. Use water spray to keep fire-exposed containers cool and to knock down vapors which may result from product decomposition.

Section 6: Accidental Release Measures

Personal Precautions: Use personal protection recommended in Section 8.

Environmental Precautions: Take precautions to prevent contamination of ground and surface waters. Do not flush into sewers or storm drains.

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Methods for Containment & Clean-up: Dike area to contain spill. Ventilate the area with fresh air. If in confined space or limited air circulation area, clean-up workers should wear appropriate respiratory protection. Recover or absorb spilled material using an absorbent designed for chemical spills. Place used absorbents into proper waste containers.

Section 7: Handling and Storage

Handling Procedures: Use with adequate ventilation. Avoid contact with skin and eyes. Wash hands after use. Do not expose aerosol containers to heat or flame. Do not incinerate container. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. For product use instructions, please see the product label.

Storage Procedures: Store in a cool dry area out of direct sunlight. Aerosol cans must be maintained below 120°F / 49°C to prevent cans from rupturing.

Aerosol Storage Level: I

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines:

COMPONENT	OSHA		ACGIH		OTHER		UNIT
	TWA	STEL	TWA	STEL	TWA	SOURCE	
Water	NE	NE	NE	NE	NE		
Liquefied Petroleum Gas	1000	NE	1000	NE	NE		ppm
2-Butoxyethanol	50 (s)	NE	20	NE	NE		ppm
Ammonia	50	NE	25	35	NE		ppm
Ethanol	1000	NE	NE	1000	NE		ppm
Methanol	200	NE	200	250	NE		ppm

N.E. – Not Established (c) – ceiling (s) – skin (v) – vacated

Controls and Protection:

Engineering Controls: Area should have ventilation to provide fresh air. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at the source, preventing dispersion into the general work area. Use mechanical means if necessary to maintain vapor levels below the exposure guidelines. If working in a confined space, follow applicable OSHA regulations.

Respiratory Protection: None required for normal work where adequate ventilation is provided. If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use NIOSH-approved self-contained positive pressure respirators in low circulation areas and for emergencies. Air monitoring is needed to determine actual employee exposure levels.

Eye/face Protection: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

Skin Protection: Use protective gloves such as nitrile or rubber. Also, use full protective clothing if there is prolonged or repeated contact of liquid with skin.

Section 9: Physical and Chemical Properties

Product Name: Industrial Glass Cleaner (aerosol)

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Physical State: liquid

Color: clear

Odor: ammonia

Odor Threshold: ND

Specific Gravity: 0.9952

Initial Boiling Point: ~ 212°F / 100°C

Freezing Point: ~ 30°F / -1°C

Vapor Pressure: ND

Vapor Density: > 1 (air = 1)

Evaporation Rate: slow

Solubility: soluble in water

Coefficient of water/oil distribution: ND

pH: 10.5

Volatile Organic Compounds: wt %: 9.6 g/L: 95.1 lbs./gal: 0.8

Section 10: Stability and Reactivity

Stability: Stable

Conditions to Avoid: Keep away from heat, direct sunlight, open flames or sparks. Dropping of containers may cause bursting.

Incompatible Materials: Strong oxidizers

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide

Possibility of Hazardous Reactions: No

Section 11: Toxicological Information

Long-term toxicological studies have not been conducted for this product. The following information is available for components of this product or is calculated from component data.

Acute Toxicity:

<u>Component</u>	<u>Oral LD50 (rat)</u>	<u>Dermal LD50 (rabbit)</u>	<u>Inhalation LC50 (rat)</u>
Glass Cleaner (calculated)	14,201 mg/kg	14,759 mg/kg	7998 mg/L/4H

Chronic Toxicity:

<u>Component</u>	<u>OSHA Carcinogen</u>	<u>IARC Carcinogen</u>	<u>NTP Carcinogen</u>	<u>Irritant</u>	<u>Sensitizer</u>
Water	No	No	No	No	No
Liquefied Petroleum Gas	No	No	No	No	No
2-Butoxyethanol	No	No	No	eye, skin	No
Ammonia	No	No	No	eye, skin, respiratory	Unknown
Ethanol	No	No	No	eye	No
Methanol	No	No	No	eye	No

Reproductive Toxicity: Suspected of damaging fertility or the unborn child.

Teratogenicity: No information available

Mutagenicity: No information available

Synergistic Effects: No information available

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Section 12: Ecological Information

Ecological studies have not been conducted for this product. The following information is available for components of this product.

Ecotoxicity: 2-Butoxyethanol 96 Hr LC50, Bluegill sunfish: 1490 mg/L
24 Hr LC50, daphnia: 1720 mg/L
Ammonium hydroxide 48 Hr EC50 water flea: 0.66 mg/L
Persistence / Degradability: Over 98% of product ingredients are biodegradable.
Bioaccumulation / Accumulation: No information available
Mobility in Environment: No information available

Section 13: Disposal Considerations

Waste Classification: The dispensed liquid product is not a hazardous waste.
Aerosol containers should be fully emptied and depressurized before disposal. Empty aerosol containers may be recycled.

All disposal activities must comply with federal, state, provincial and local regulations. Local regulations may be more stringent than state, provincial or national requirements.

Section 14: Transport Information

US DOT (ground): UN1950, Aerosols, non-flammable, 2.2, Limited Quantity
ICAO/IATA (air): UN1950, Aerosols, non-flammable, 2.2, Limited Quantity
IMO/IMDG (water): UN1950, Aerosols, 2.2, Limited Quantity
Special Provisions: None

Section 15: Regulatory Information

U.S. Federal Regulations:

Toxic Substances Control Act (TSCA):

All ingredients are either listed on the TSCA inventory or are exempt.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):

Reportable Quantities (RQ's) exist for the following ingredients: None

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Superfund Amendments Reauthorization Act (SARA) Title III:

Section 302 Extremely Hazardous Substances (EHS): None

Section 311/312 Hazard Categories: Fire Hazard No
Reactive Hazard No

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Release of Pressure Yes
Acute Health Hazard Yes
Chronic Health Hazard No

Section 313 Toxic Chemicals: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:
2-Butoxyethanol (glycol ethers category): 2.85%

Clean Air Act:

Section 112 Hazardous Air Pollutants (HAPs): None

Occupational Safety and Health Administration:

This product is regulated by the Hazard Communications Standard.

Canadian Regulations:

Controlled Products Regulations:

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

WHMIS Hazard Class: A, D2A, D2B

Canadian DSL Inventory: All ingredients are either listed on the DSL Inventory or are exempt.

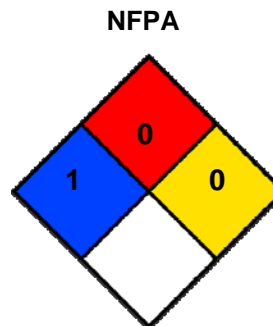
European Union Regulations:

RoHS Compliance: This product is compliant with Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003. This product does not contain any of the restricted substances as listed in Article 4(1) of the RoHS Directive.

Additional Regulatory Information: None

Section 16: Other Information

HMIS® (II)	
Health:	1
Flammability:	0
Reactivity:	0
PPE:	B



Ratings range from 0 (no hazard) to 4 (severe hazard)

Revision Date: 11/03/2014

Changes since last revision: Section 11: Reproductive toxicity
Section 15: WHMIS Hazard class

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of our knowledge or obtained from sources believed to be accurate. Before using any product, read all warnings and directions on the label.

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For further clarification of any information contained on this MSDS consult your supervisor, or a health & safety professional.

ACGIH: American Conference of Governmental Industrial Hygienists	NA: Not Applicable
CAS: Chemical Abstract Service	ND: Not Determined
CFR: Code of Federal Regulations	NIOSH: National Institute of Occupational Safety & Health
DOT: Department of Transportation	NFPA: National Fire Protection Association
DSL: Domestic Substance List	NTP: National Toxicology Program
g/L: grams per Liter	OSHA: Occupational Safety and Health Administration
HMIS: Hazardous Materials Identification System	PMCC: Pensky-Martens Closed Cup
IARC: International Agency for Research on Cancer	PPE: Personal Protection Equipment
IATA: International Air Transport Association	ppm: Parts per Million
ICAO: International Civil Aviation Organization	RoHS: Restriction of Hazardous Substances
IMDG: International Maritime Dangerous Goods	STEL: Short Term Exposure Limit
IMO: International Maritime Organization	TCC: Tag Closed Cup
lbs./gal: pounds per gallon	TWA: Time Weighted Average
LC: Lethal Concentration	WHMIS: Workplace Hazardous Materials Information System
LD: Lethal Dose	

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