1. CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Name: MS-260 Safezone Cleaner for Glass

Product Use: Aerosol cleaner for Glass

MANUFACTURER/DISTRIBUTOR:

Miller-Stephenson Chemical
55 Backus Ave.
Danbury, Conn. 06810 USA
(203) 743-4447

Emergency Phone Number:
(800) 424-9300

2. HAZARDS IDENTIFICATION

Physical Hazard: Gases under pressure – Liquefied Gas

Label elements:

Single Word: Warning
Hazard Statements: Contains gas under pressure; may explode if heated.

Precautionary statements:
Observe good industrial hygiene practices.
If exposed or concerned: Get medical advice/attention.
Protect for sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store in a well-ventilated area.
Dispose of contents/container in accordance with local, regional, national regulations.

Hazard(s) not otherwise classified (HNOC): None known.

3. INGREDIENTS

Material (s)	CAS #	Approximate %
Ethyl Alcohol	64-17-5	2 – 10
2-Butoxyethanol	111-76-2	2 – 10
Propane	74-98-6	1 – 3
n-Butane	106-97-8	1 – 3
Water	7732-18-5	> 90

4. FIRST AID MEASURES

Eye: No specific first aid measures noted. Get medical attention if irritation persists.

Skin: No adverse effects due to skin contact are expected. Get medical attention if irritation or symptoms of exposure develop.

Inhalation: Remove victim to fresh air. Get medical attention if symptoms persist.

Ingestion: Not likely, due to the form of the product. Rinse mouth

Most important symptoms/ effects, acute and delayed: Direct contact with eyes may cause temporary irritation.

Indication of immediate medical attention and special treatment needed: Provide general supportive measures and treat symptomatically.

General information: Ensure that medical personnel are aware of the material(s) and take precautions to protect themselves.

5. FIRE FIGHTING MEASURES

Flammability: This product is not flammable. **Test Method:** Ignition distance test and Enclosed space ignition test

Flash point: -156°F/-104°C Propellant estimated

Suitable extinquishing media: Use water fog, foam, carbon dioxide, or dry chemical.

Unsuitable extinquishing media: None known.

Special hazards: Fire or intense heat may cause violent rupture of cans. The product is not flammable. Hazardous combustion products may form.

Special Fire Fighting Instruction: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. Exposure to decomposition products may be a hazard to health.

Further information: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Evacuate personnel to safe areas. Cool cans with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Keep unnecessary personnel away. Wear appropriate personal protective equipment during clean up. Ventilate area.

Methods and materials for containment and cleaning up: Stop the leak if you can do so without risk. Eliminate all sources of ignition away from spilled material. Use non-combustible material like vermiculite, sand, or earth to soak up material and collect into a suitable container for disposal. Prevent entry into waterways, sewers, basements or other confined areas. Report significant spills and releases as required to appropriate authorities.

Environmental precautions: Avoid discharge into drains, water courses or onto the ground.

7. HANDLING AND STORAGE

Precautions for safe handling: Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Avoid breathing vapors and mists. Use with adequate ventilation. Wash exposed skin thoroughly with soap and water after use. Keep away from heat, sparks and flame. Contents under pressure. Do not puncture or incinerate container. Do not use if spray button is missing or defective. Do not spray on flame or other incandescent materials.

Conditions for safe storage: Contents are under pressure. Do not puncture, incinerate or crush. Keep away from heat, sparks, and flame. Store in a cool, well-ventilated area at temperatures below 122ºF/50ºC. Do not store in direct sunlight.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:	ACGIH	OSHA
Ethyl Alcohol	1000 ppm (STEL)	1000 ppm (PEL)
2-Butoxyethanol	20 ppm (TWA)	50 ppm (PEL)
Propane		1000 ppm (PEL)
n-Butane	1000 ppm (STEL)	

Ventilation: General ventilation should be adequate for normal use. For operations where the occupational exposure limit may be exceeded, mechanical ventilation such as local exhaust ventilation, or other engineering controls may be needed to maintain airborne levels below recommended exposure limits.

Respiratory Protection: None needed under normal use conditions. For operations where the occupational exposure limit may be exceeded use NIOSH mechanical filter/organic vapor cartridge or air-supplied respirator.

Skin Protection: Chemical resistant gloves are recommended for operations which may result in prolonged/ repeated skin contact. Suitable gloves can be recommended by glove supplier.

Eye Protection: Wear chemical safety glasses or goggles to prevent eye contact.

General hygiene considerations: When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Light foam dissipates to a clear to light yellow liquid in an aerosol package.

Boiling Point: Not applicable

Vapor Pressure: 80 – 100 psig at 70^{O}F/20^{O}C

pH Information: 9.1 – 10.1

Solubility: Not available

Vapor Density (Air=1): Not available

Specific Gravity: 0.977 – 0.997 estimated

Form: Aerosol

Physical State: Liquid

Color: Clear to light yellow

Odor: Characteristic

10. STABILITY AND REACTIVITY

Reactivity: The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical Stability: Stable at normal storage conditions.

Conditions to Avoid: Keep away from heat, sparks, flames and other sources of ignition. Contact with incompatible materials.

Incompatible materials: Strong oxidizing agents

Hazardous Decomposition Products: None known.

11. TOXICOLOGICAL INFORMATION

2-Butoxyethanol
Acute
Inhalation: 7 hour LC50: 400 ppm in rabbits
Inhalation: 4 hour LC50: 450 ppm in rats
Oral: LD100: 695 mg/kg in rabbits
Oral: LD50: 1746 mg/kg in rats; 1414 mg/kg in guinea pig; > 695mg/kg in dogs; 1519 mg/kg in mice
Dermal: 24 hour LD50: > 2000 mg/kg in rats; 435 mg/kg in rabbits
Dermal: 4 days LD50: 7.3 ml/kg in guinea pig

Ethyl Alcohol
Acute
Oral: LD50: 10470 mg/kg in rats; 6000 mg/kg in monkeys; 10500 ml/kg in mice
Inhalation: 4 hour LC50: >115.9 mg/l in rats
Inhalation: LC50: >60000 ppm in mice
Inhalation: 6 hour LC50: 43.68 mg/l in cats

n-Butane
Acute
Inhalation: LC50: 1355 mg/l in rats
Inhalation: 120 minutes LC50: 1237 mg/l in mice

Propane
Acute
Inhalation: 4 hour LC50: 658 mg/l in rats
Inhalation: 120 minutes LC50: 1237 mg/l in mice

Skin corrosion/irritation: Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation: Direct contact with the eyes may cause temporary irritation.
Respiratory or skin sensitization: Not a sensitizer.
Germ cell mutagenicity: No data available.
Carcinogenicity: This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA,
Reproductive toxicity: Not expected to cause reproductive or developmental effects.
Specific target organ toxicity- single exposure: Not classified
Specific target organ toxicity- repeated exposure: Not classified
Aspiration hazard: Not likely, due to the form of the product.
Chronic effects: Prolonged inhalation may be harmful. May be harmful if absorbed by the skin.
2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.

12. ECOLOGICAL INFORMATION

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

2-Butoxyethanol
Aquatic: Fish: 96 hour LC50: 1250 mg/l in Inland silverside (Menidia beryllina)

Ethyl Alcohol
Aquatic: Crustacea: 48 hour EC50: 7700- 11200 mg/l in Water flea (Daphnia magna)
Fish: 96 hour LC50: > 100.1 mg/l in Fathead minnow (Pimephales promelas)

Persistence and degradability: No data is available on the degradability of this product.

Bioaccumulative potential:
Partition coefficient n-octanol/water (log Kow):
2-butoxyehtanol: 0.83
Butane: 2.89
Ethyl Alcohol: -0.31
Propane: 2.36

Mobiltiy in soil: No data available.

13. DISPOSAL CONSIDERATIONS

Content under pressure. Do not puncture, incinerate, or crush containers. Do not allow this material to drain into sewer/water supplies. Empty containers may retain some product residue. The material and container must be disposed of in a safe manner. It is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets criteria for hazardous waste. Dispose in accordance with all local, regional, and national regulations.

14. TRANSPORT INFORMATION

DOT Proper Shipping Name: Consumer Commodity
DOT Hazard Class: ORM-D
Subsidiary hazard class: None

IMDG Shipping Description: Aerosols, Non-Flammable
Hazard Class: 2.2
UN Number: UN1950

IATA Shipping Description: Aerosols, Non-Flammable
Hazard Class: 2.2
UN Number: UN1950

15. REGULATORY INFORMATION

US Federal Regulations:

TSCA: All ingredients are listed in TSCA inventory

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D): Not regulated.

Occupational Safety and Health Administration (OSHA)
29 CFR 1910.1200 hazardous chemical: Yes

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not regulated.

CERCLA (Superfund) reportable quantity: None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard catagories:	Acute Health	- No
	Chronic Health	- No
	Fire Hazard	- No
	Reactivity Hazard	- No
	Pressure Hazard	- Yes

SARA 302 Extremely hazardous substance: Not listed
SARA 311/312 Hazardous chemical: No

SARA 313 (TRI reporting)
2-butoxyethanol (111-76-2), 2.5 -10 % by wt.

Other Federal Regulations:

Clean Air Act (CCA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

Clean Air Act (CCA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Butane (CAS 106-97-8)
Propane (CAS 74-98-6)

Safe Drinking Water Act
Not regulated.

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)
Not listed.
US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))
2-butoxyethanol (CAS 111-76-2)
Butane (CAS 106-97-8)
US. Massachusetts RTK - Substance List
2-butoxyethanol (CAS 111-76-2)
Butane (CAS 106-97-8)
Ethyl Alcohol (CAS 64-17-5)
Propane (CAS 74-98-6)
US. New Jersey Worker and Community Right-to-Know Act
2-butoxyethanol (CAS 111-76-2)
Butane (CAS 106-97-8)
Ethyl Alcohol (CAS 64-17-5)
Propane (CAS 74-98-6)

US. Pennsylvania Worker and Community Right-to-Know Law

2-butoxyethanol (CAS 111-76-2)
Butane (CAS 106-97-8)
Ethyl Alcohol (CAS 64-17-5)
Propane (CAS 74-98-6)

US. Rhode Island RTK

Butane (CAS 106-97-8)
Propane (CAS 74-98-6)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

16. OTHER INFORMATION

FOR INDUSTRIAL USE ONLY

REVISION DATE: JANUARY 2020

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user.