



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product number 050-004
Product name **Gleme Glass Cleaner**
Effective date 26-Feb-2011
Company information Claire Mfg.
1005 Westgate
Addison, IL 60101 United States
Company phone General Assistance 630-543-7600
Emergency telephone US 800-424-9300
Emergency telephone outside US 703-527-3887
Version # 24
Supersedes date 26-Oct-2010

2. Hazards Identification

Emergency overview Aerosol CONTENTS UNDER PRESSURE.
Prolonged exposure may cause chronic effects May be ignited by heat sparks or flames.

Potential health effects

Routes of exposure Skin contact Ingestion

Eyes Health injuries are not known or expected under normal use

Skin May be harmful if absorbed through skin. Frequent or prolonged contact may defat and dry the skin leading to discomfort and dermatitis

Inhalation Intentional misuse by concentrating and inhaling the product can be harmful or fatal

Ingestion Exposure by ingestion of an aerosol is unlikely Components of the product may be absorbed into the body by ingestion

Target organs 2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged and may cause blood damage These effects have not been observed in humans

Chronic effects Unconsciousness. Cyanosis (blue tissue condition, nails, lips, and/or skin) May be harmful if absorbed through skin Liver injury may occur. Kidney injury may occur. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis

Signs and symptoms Cyanosis (blue tissue condition, nails, lips, and/or skin) Liver enlargement Jaundice Defatting of the skin Skin irritation.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Ethyl Alcohol	64-17-5	1 - 3
2-Butoxyethanol	111-76-2	1 - 3
Propane	74-98-6	1 - 3
n-Butane	106-97-8	1 - 3
Non-hazardous and other components below reportable levels		> 90

4. First Aid Measures

First aid procedures

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do Continue rinsing. Get medical attention if irritation develops or persists

Skin contact Immediately take off all contaminated clothing. Wash off with warm water and soap Get medical attention if irritation develops and persists

Inhalation	If symptoms develop move victim to fresh air Get medical attention if symptoms occur
Ingestion	If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. If ingestion of a large amount does occur call a poison control center immediately
Notes to physician	In case of shortness of breath give oxygen Keep victim warm Keep victim under observation

5. Fire Fighting Measures

Flammable properties	Heat may cause the containers to explode Vapor or gas may spread to distant ignition sources and flash back Runoff to sewer may cause fire or explosion hazard
Extinguishing media	
Suitable extinguishing media	Water fog Foam Dry chemical powder Carbon dioxide (CO2)
Protection of firefighters	
Protective equipment and precautions for firefighters	In case of fire and/or explosion do not breathe fumes. Containers should be cooled with water to prevent vapor pressure build up. Move containers from fire area if you can do so without risk. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible If not, withdraw and let fire burn out.

6. Accidental Release Measures

Methods for containment	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area) Stop the flow of material, if this is without risk Prevent entry into waterways sewer basements or confined areas.
Methods for cleaning up	Should not be released into the environment
	Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination

7. Handling and Storage

Handling	Pressurized container: Do not pierce or burn, even after use. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition Protect material from direct sunlight. Do not smoke while using or until sprayed surface is thoroughly dry. Use only in area provided with appropriate exhaust ventilation. Do not use if spray button is missing or defective Do not re-use empty containers. Avoid breathing dust/fume/gas/mist/vapors/spray Avoid contact with skin Avoid contact with eyes. Wear personal protective equipment Avoid prolonged exposure
Storage	Contents under pressure Do not puncture, incinerate or crush The pressure in sealed containers can increase under the influence of heat. Keep away from heat and flame. Do not expose to heat or store at temperatures above 120°F/49°C as can may burst. Avoid exposure to long periods of sunlight Store in a well-ventilated place Keep away from food, drink and animal feedingstuffs Level 1 Aerosol (NFPA 30B)

8. Exposure Controls / Personal Protection

Exposure limits

ACGIH

Components	CAS #	TWA	STEL	Ceiling
Ethyl Alcohol	64-17-5	1000 ppm	1000 ppm	Not established
2-Butoxyethanol	111-76-2	20 ppm	Not established	Not established
Propane	74-98-6	1000 ppm	Not established	Not established
n-Butane	106-97-8	1000 ppm	Not established	Not established

OSHA

Components	CAS #	TWA	STEL	Ceiling
Ethyl Alcohol	64-17-5	1000 ppm	Not established	Not established
2-Butoxyethanol	111-76-2	50 ppm	Not established	Not established
Propane	74-98-6	1000 ppm	Not established	Not established

Personal protective equipment

Eye / face protection	Chemical goggles are recommended
Skin protection	Wear appropriate chemical resistant clothing Chemical resistant gloves

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator

9. Physical & Chemical Properties

Appearance	Compressed liquefied gas
Boiling point	204.8 °F (96.1 °C) estimated
Color	Colorless
Density	0.9604 g/cm ³ estimated
Flammability (HOC)	3.2733 kJ/g estimated
Flash back	No
Flash point	-156 °F (-104.4 °C) Propellant
Form	Aerosol
Freezing point	Not available
Odor	Butyl
pH	9.5 - 10.5
Physical state	Liquid
Pressure	70 - 90 psig @ 70F
Solubility	Completely
Specific gravity	0.9605 estimated

10. Chemical Stability & Reactivity Information

Conditions to avoid	Heat, flames and sparks
Incompatible materials	None known
Hazardous decomposition products	Irritants Toxic gas

11. Toxicological Information

Acute effects	Acute LD50: 7571 mg/kg estimated, Rat, Dermal	
Component analysis - LD50		
Toxicology Data - Selected LD50s and LC50s		
2-Butoxyethanol	111-76-2	Inhalation LC50 Rat 2.21 mg/L 4 h; Inhalation LC50 Rat 450 ppm 4 h; Oral LD50 Rat 470 mg/kg; Dermal LD50 Rat 2270 mg/kg; Dermal LD50 Rabbit 220 mg/kg
Ethyl Alcohol	64-17-5	Oral LD50 Rat 7060 mg/kg; Inhalation LC50 Rat 124.7 mg/L 4 h
n-Butane	106-97-8	Inhalation LC50 Rat 658 mg/L 4 h
Propane	74-98-6	Inhalation LC50 Rat 658 mg/L 4 h
Sensitization	Not expected to be hazardous by OSHA criteria	
Carcinogenicity	Hazardous by OSHA criteria	
IARC - Group 1 (Carcinogenic to Humans)		
Ethyl Alcohol	64-17-5	Monograph 100E [in preparation] (in alcoholic beverages); Monograph 96 [in preparation] (in alcoholic beverages)
Reproductive effects	Hazardous by OSHA criteria Possible reproductive hazard	
Teratogenicity	Not expected to be hazardous by OSHA criteria.	

12. Ecological Information

Ecotoxicity	Components of this product have been identified as having potential environmental concerns
	LC50 36327 mg/L Fish, 96.00 Hours, EC50 26428 mg/L Daphnia, 48.00 Hours, IC50 11902 mg/L, Algae, 72.00 Hours,

13. Disposal Considerations

Disposal instructions	Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. This product in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.
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14. Transport Information

Department of Transportation (DOT) Requirements

Basic shipping requirements:

Proper shipping name	Consumer commodity
Hazard class	ORM-D
Subsidiary hazard class	None
Additional information:	
Packaging exceptions	156 306
Packaging non bulk	156, 306
Packaging bulk	None

IMDG

Basic shipping requirements:

Proper shipping name	AEROSOLS
Hazard class	2.1
UN number	1950
Additional information:	
Packaging exceptions	LTD QTY
Item	5F
Labels required	None
Transport Category	2



IATA

Basic shipping requirements:

Proper shipping name	Aerosols, flammable
Hazard class	2.1
UN number	1950
Additional information:	
Packaging exceptions	LTD QTY
Labels required	2.1



15. Regulatory Information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

2-Butoxyethanol	111-76-2	1.0 % de minimis concentration (applies to R-(OCH ₂ CH ₂) _n -OR, where n = 1, 2 or 3 R=alkyl C7 or less, or R = phenyl or alkyl substituted phenyl, R' = H or alkyl C7 or less, or OR' consisting of carboxylic acid ester sulfate phosphate nitrate or sulfonate Chemical Category N230)
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Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical	Yes
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CERCLA (Superfund) reportable quantity

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 302 extremely hazardous substance	No
Section 311 hazardous chemical	Yes
Hazard categories (311/312)	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - Yes Pressure Hazard - Yes Reactivity Hazard - No

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of New and Existing Chemicals (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations**U.S. - Pennsylvania - RTK (Right to Know) List**

2-Butoxyethanol	111-76-2	Present
Ethyl Alcohol	64-17-5	Present
n-Butane	106-97-8	Present
Propane	74-98-6	Present

16. Other Information**Further information**

HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings

Health: 1
Flammability: 2
Physical hazard: 0

Disclaimer

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. The information in the sheet was written based on the best knowledge and experience currently available.

MSDS sections updated

Product and Company Identification: Alternate Trade Names
Toxicological Information: Carcinogenicity
Regulatory Information: Safety Phrases

Prepared by

Regulatory Compliance