SAFETY DATA SHEET

1. Identification

Product identifier: GLEME GLASS CLEANER

Other means of identification
SDS number: RE100006753

Recommended restrictions
Product use: Cleaner
Restrictions on use: Not known.

Manufacturer/Importer/Distributor Information

Manufacturer
Company Name: CLAIRE MANUFACTURING COMPANY
Address: 1000 Integram Dr
Pacific, MO 63069
Telephone: 1-630-543-7600
Fax:

Emergency telephone number: 1-866-836-8855

2. Hazard(s) identification

Hazard Classification

Physical Hazards
Gases under pressure
Compressed gas

Label Elements

Hazard Symbol:

Signal Word: Warning

Hazard Statement: Contains gas under pressure; may explode if heated.

Precautionary Statements
Storage: Protect from sunlight. Store in a well-ventilated place.

Hazard(s) not otherwise classified (HNOC):
None.
3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>CAS number</th>
<th>Content in percent (%)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>1 - &lt;5%</td>
</tr>
<tr>
<td>Ethanol, 2-butoxy-</td>
<td>111-76-2</td>
<td>1 - &lt;5%</td>
</tr>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>1 - &lt;5%</td>
</tr>
<tr>
<td>Butane</td>
<td>106-97-8</td>
<td>1 - &lt;5%</td>
</tr>
</tbody>
</table>

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

**Ingestion:** Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

**Inhalation:** Move to fresh air.

**Skin Contact:** Wash skin thoroughly with soap and water. If skin irritation occurs: Get medical advice/attention.

**Eye contact:** Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/attention.

**Most important symptoms/effects, acute and delayed**

**Symptoms:** No data available.

**Hazards:** No data available.

**Indication of immediate medical attention and special treatment needed**

**Treatment:** No data available.

5. Fire-fighting measures

**General Fire Hazards:** Use water spray to keep fire-exposed containers cool. Fight fire from a protected location. Move containers from fire area if you can do so without risk.

**Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical:** Pressurized container may explode when exposed to heat or flame.

**Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** No data available.
Special protective equipment for fire-fighters: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: No data available.

Methods and material for containment and cleaning up: Stop the flow of material, if this is without risk. Absorb with sand or other inert absorbent.

Environmental Precautions: Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer. Environmental manager must be informed of all major spillages.

7. Handling and storage

Precautions for safe handling: Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities: Protect from sunlight. Store in a cool place. Aerosol Level 1

8. Exposure controls/personal protection

Control Parameters

<table>
<thead>
<tr>
<th>Occupational Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chemical Identity</strong></td>
</tr>
<tr>
<td>--------------------------</td>
</tr>
<tr>
<td>Ethanol</td>
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<tr>
<td></td>
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<td></td>
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<tr>
<td></td>
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<tr>
<td>Ethanol, 2-butoxy-</td>
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<tr>
<td>Propane</td>
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<tr>
<td>Butane</td>
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<tr>
<td>Morpholine</td>
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<tr>
<td></td>
</tr>
<tr>
<td>Chemical Identity</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>Ethanol, 2-butoxy- (Butoxyacetic acid (BAA), with hydrolysis: Sampling time: End of shift.)</td>
</tr>
</tbody>
</table>

**Appropriate Engineering Controls**

No data available.

**Individual protection measures, such as personal protective equipment**

**General information:** Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

**Eye/face protection:** Wear goggles/face shield.

**Skin Protection**

**Hand Protection:** No data available.

**Other:** No data available.

**Respiratory Protection:** In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

**Hygiene measures:** Observe good industrial hygiene practices.

### 9. Physical and chemical properties

**Appearance**

**Physical state:** liquid

**Form:** Spray Aerosol

**Color:** No data available.

**Odor:** No data available.

**Odor threshold:** No data available.

**pH:** 8.7 - 9.7

**Melting point/freezing point:** No data available.
Initial boiling point and boiling range: No data available.
Flash Point: Not applicable
Evaporation rate: No data available.
Flammability (solid, gas): Non-flammable Aerosol
Upper/lower limit on flammability or explosive limits
  Flammability limit - upper (%): No data available.
  Flammability limit - lower (%): No data available.
  Explosive limit - upper (%): No data available.
  Explosive limit - lower (%): No data available.
Vapor pressure: 5,515 - 6,894 hPa (20 °C)
Vapor density: No data available.
Density: No data available.
Relative density: No data available.
Solubility(ies)
  Solubility in water: No data available.
  Solubility (other): No data available.
Partition coefficient (n-octanol/water): No data available.
Auto-ignition temperature: No data available.
Decomposition temperature: No data available.
Viscosity: No data available.

10. Stability and reactivity
Reactivity: No data available.
Chemical Stability: Material is stable under normal conditions.
Possibility of hazardous reactions: No data available.
Conditions to avoid: Avoid heat or contamination.
Incompatible Materials: No data available.
Hazardous Decomposition Products: No data available.

11. Toxicological information
Information on likely routes of exposure
  Inhalation: No data available.
  Skin Contact: No data available.
  Eye contact: No data available.
  Ingestion: No data available.
Symptoms related to the physical, chemical and toxicological characteristics
  Inhalation: No data available.
  Skin Contact: No data available.
Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

**Oral**
- **Product:** ATEmix: 36,844.23 mg/kg

**Dermal**
- **Product:** ATEmix: 32,120.9 mg/kg

**Inhalation**
- **Product:** ATEmix: 690.87 mg/l
  - ATEmix: 172.72 mg/l

Repeated dose toxicity
- **Product:** No data available.

**Specified substance(s):**
- **Ethanol**
  - NOAEL (Rat(Male), Oral, 7 - 14 Weeks): 10 % (m) Oral Experimental result, Key study
- **Ethanol, 2-butoxy-**
  - NOAEL (Rat(Female), Inhalation, 2 yr): < 31 ppm(m) Inhalation Experimental result, Key study
  - NOAEL (Rat(Female), Oral, 90 d): < 82 mg/kg Oral Experimental result, Key study
  - NOAEL (Rabbit(Female, Male), Dermal, 90 d): > 150 mg/kg Dermal Experimental result, Key study

**Propane**
- NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study
- LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study

**Butane**
- LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study
- NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study

Skin Corrosion/Irritation
- **Product:** No data available.

**Specified substance(s):**
- **Ethanol**
  - in vivo (Rabbit): Not irritant Experimental result, Key study
- **Ethanol, 2-butoxy-**
  - in vivo (Rabbit): Irritating Experimental result, Key study

Serious Eye Damage/Eye Irritation
- **Product:** No data available.

**Specified substance(s):**
- **Ethanol**
  - Rabbit, 1 - 24 hrs: Not irritating
- **Ethanol, 2-butoxy-**
  - Rabbit, 24 - 72 hrs: Irritating

Respiratory or Skin Sensitization
- **Product:** No data available.

**Specified substance(s):**
Ethanol
Skin sensitization: in vivo (Guinea pig): Non sensitising
Ethanol, 2-butoxy-
Skin sensitization: in vivo (Guinea pig): Non sensitising

Carcinogenicity
Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:
No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:
No carcinogenic components identified

No carcinogenic components identified

Germ Cell Mutagenicity
In vitro
Product: No data available.
In vivo
Product: No data available.

Reproductive toxicity
Product: No data available.

Specific Target Organ Toxicity - Single Exposure
Product: No data available.
Specific Target Organ Toxicity - Repeated Exposure
Product: No data available.

Aspiration Hazard
Product: No data available.
Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish
Product: No data available.

Specified substance(s):
Ethanol
LC 50 (Pimephales promelas, 96 h): 15.3 g/l Experimental result, Key study
Ethanol, 2-butoxy-
LC 50 (Oncorhynchus mykiss, 96 h): 1,474 mg/l Experimental result, Key study
Propane
LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study
Butane
LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study

Aquatic Invertebrates
Product: No data available.
Specified substance(s):
Ethanol LC 50 (Ceriodaphnia dubia, 48 h): 5,012 mg/l Experimental result, Key study
Ethanol, 2-butoxy- EC 50 (Daphnia magna, 48 h): 1,550 mg/l Experimental result, Key study
Butane LC 50 (Daphnia sp., 48 h): 69.43 mg/l QSAR QSAR, Key study

Chronic hazards to the aquatic environment:

Fish
Product: No data available.

Specified substance(s):
Ethanol NOAEL (Oryzias latipes): 7,900 mg/l Read-across from supporting substance (structural analogue or surrogate), Supporting study
Ethanol, 2-butoxy- NOAEL (Danio rerio): > 100 mg/l Experimental result, Key study

Aquatic Invertebrates
Product: No data available.

Specified substance(s):
Ethanol LC 50 (Daphnia magna): 454 mg/l Experimental result, Key study
NOAEL (Daphnia magna): 9.6 mg/l Experimental result, Key study
Ethanol, 2-butoxy- EC 10 (Daphnia magna): 134 mg/l Experimental result, Key study
EC 50 (Daphnia magna): 297 mg/l Experimental result, Key study

Toxicity to Aquatic Plants
Product: No data available.

Persistence and Degradability

Biodegradation
Product: No data available.

Specified substance(s):
Ethanol 95 % Detected in water. Experimental result, Key study
Ethanol, 2-butoxy- 90.4 % Detected in water. Experimental result, Key study
Propane 100 % (385.5 h) Detected in water. Experimental result, Key study
50 % (3.19 d) Detected in water. QSAR, Weight of Evidence study
Butane 100 % (385.5 h) Detected in water. Experimental result, Key study

BOD/COD Ratio
Product: No data available.

Bioaccumulative potential
Bioconcentration Factor (BCF)
Product: No data available.

Specified substance(s):
Ethanol Cyprinus carpio, Bioconcentration Factor (BCF): 4.5 Aquatic sediment Read-across from supporting substance (structural analogue or surrogate), Supporting study

Partition Coefficient n-octanol / water (log Kow)
**Product:** No data available.

**Mobility in soil:** No data available.

**Known or predicted distribution to environmental compartments**
- Ethanol: No data available.
- Ethanol, 2-butoxy: No data available.
- Propane: No data available.
- Butane: No data available.

**Other adverse effects:** No data available.

### 13. Disposal considerations

**Disposal instructions:** Wash before disposal. Dispose to controlled facilities.

**Contaminated Packaging:** No data available.

### 14. Transport information

**DOT**

<table>
<thead>
<tr>
<th>UN Number:</th>
<th>1950</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN Proper Shipping Name:</td>
<td>Aerosols, non-flammable</td>
</tr>
<tr>
<td>Transport Hazard Class(es):</td>
<td>2.2</td>
</tr>
<tr>
<td>Class:</td>
<td>2</td>
</tr>
<tr>
<td>Label(s):</td>
<td>–</td>
</tr>
<tr>
<td>Packing Group:</td>
<td>II</td>
</tr>
<tr>
<td>Marine Pollutant:</td>
<td>No</td>
</tr>
<tr>
<td>Environmental Hazards:</td>
<td>No</td>
</tr>
<tr>
<td>Marine Pollutant:</td>
<td>No</td>
</tr>
<tr>
<td>Special precautions for user:</td>
<td>Not regulated.</td>
</tr>
</tbody>
</table>

**IMDG**

<table>
<thead>
<tr>
<th>UN Number:</th>
<th>1950</th>
</tr>
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<tbody>
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<td>UN Proper Shipping Name:</td>
<td>Aerosols, non-flammable</td>
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<td>Transport Hazard Class(es):</td>
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<td>2</td>
</tr>
<tr>
<td>Label(s):</td>
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</tr>
<tr>
<td>EmS No.:</td>
<td>–</td>
</tr>
<tr>
<td>Packing Group:</td>
<td>–</td>
</tr>
<tr>
<td>Environmental Hazards:</td>
<td>No</td>
</tr>
<tr>
<td>Marine Pollutant:</td>
<td>No</td>
</tr>
<tr>
<td>Special precautions for user:</td>
<td>Not regulated.</td>
</tr>
</tbody>
</table>

**IATA**

<table>
<thead>
<tr>
<th>UN Number:</th>
<th>1950</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper Shipping Name:</td>
<td>Aerosols, non-flammable</td>
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<tr>
<td>Label(s):</td>
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<tr>
<td>Packing Group:</td>
<td>–</td>
</tr>
<tr>
<td>Environmental Hazards:</td>
<td>No</td>
</tr>
<tr>
<td>Marine Pollutant:</td>
<td>No</td>
</tr>
</tbody>
</table>
Special precautions for user: Not regulated.
Cargo aircraft only: Allowed.

15. Regulatory information

US Federal Regulations

Restrictions on use: Not known.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Reportable quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>lbs. 100</td>
</tr>
<tr>
<td>Propane</td>
<td>lbs. 100</td>
</tr>
<tr>
<td>Butane</td>
<td>lbs. 100</td>
</tr>
<tr>
<td>Morpholine</td>
<td>lbs. 100</td>
</tr>
<tr>
<td>Nitrous acid, sodium salt (1:1)</td>
<td>lbs. 100</td>
</tr>
<tr>
<td>2-Propanol, 2-methyl-</td>
<td>lbs. 100</td>
</tr>
</tbody>
</table>

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Not listed.

SARA 302 Extremely Hazardous Substance
None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

<table>
<thead>
<tr>
<th>Chemical Identity</th>
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</thead>
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<td>lbs. 100</td>
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<td>Ethanol, 2-butoxy-</td>
<td>lbs. 100</td>
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<td>lbs. 100</td>
</tr>
<tr>
<td>2-Propanol, 2-methyl-</td>
<td>lbs. 100</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazardous Chemical

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Threshold Planning Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Ethanol, 2-butoxy-</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Propane</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Butane</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Morpholine</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Nitrous acid, sodium salt (1:1)</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>2-Propanol, 2-methyl-</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Silica</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>2,6-Octadienal, 3,7-dimethyl-</td>
<td>10000 lbs</td>
</tr>
</tbody>
</table>

SARA 313 (TRI Reporting)

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Reporting threshold for other users</th>
<th>Reporting threshold for manufacturing and processing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol, 2-butoxy-</td>
<td>N230 lbs</td>
<td>N230 lbs</td>
</tr>
</tbody>
</table>
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

US State Regulations

**US. California Proposition 65**
No ingredient requiring a warning under CA Prop 65.

**US. New Jersey Worker and Community Right-to-Know Act**

**Chemical Identity**
- Ethanol
- Ethanol, 2-butoxy-
- Propane
- Butane

**US. Massachusetts RTK - Substance List**
No ingredient regulated by MA Right-to-Know Law present.

**US. Pennsylvania RTK - Hazardous Substances**

**Chemical Identity**
- Ethanol
- Ethanol, 2-butoxy-
- Propane
- Butane

**US. Rhode Island RTK**
No ingredient regulated by RI Right-to-Know Law present.

International regulations

**Montreal protocol**
Not applicable

**Stockholm convention**
Not applicable

**Rotterdam convention**
Not applicable

**Kyoto protocol**
Not applicable
Inventory Status:
- Australia AICS: On or in compliance with the inventory
- Canada DSL Inventory List: On or in compliance with the inventory
- Canada NDSL Inventory: Not in compliance with the inventory
- Ontario Inventory: On or in compliance with the inventory
- China Inv. Existing Chemical Substances: On or in compliance with the inventory
- Japan (ENCS) List: On or in compliance with the inventory
- Japan ISHL Listing: Not in compliance with the inventory
- Japan Pharmacopoeia Listing: Not in compliance with the inventory
- Korea Existing Chemicals Inv. (KECI): Not in compliance with the inventory
- Mexico INSQ: Not in compliance with the inventory
- New Zealand Inventory of Chemicals: Not in compliance with the inventory
- Philippines PICCS: Not in compliance with the inventory
- Taiwan Chemical Substance Inventory: On or in compliance with the inventory
- US TSCA Inventory: On or in compliance with the inventory
- EINECS, ELINCS or NLP: Not in compliance with the inventory

16. Other information, including date of preparation or last revision

Issue Date: 04/02/2020
Revision Information: No data available.
Version #: 2.0
Further Information: No data available.
Disclaimer: This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.