1. PRODUCT AND COMPANY IDENTIFICATION

Product name  Swisher Glass Kleen
Product code  41896-1
Recommended Use  Concentrated Glass Cleaner

Distributor  
Swisher Hygiene Inc.
4725 Piedmont Row Drive,
Suite 400,
Charlotte, NC 28210

Chemical Emergency Phone Number  800-424-9300 (Chemtrec)
Company Emergency Phone Number  800-444-4138

2. HAZARDS IDENTIFICATION

Emergency Overview  
The product contains no substances which at their given concentration, are considered to be hazardous to health.

Potential Health Effects
Acute toxicity
   Eyes  Contact irritation and tearing.
   Skin  Prolonged skin contact may cause skin irritation
   Inhalation  Irritating to respiratory system
   Ingestion  Gastrointestinal irritation, if swallowed nausea and headache

Chronic Effects  No known effect based on information supplied
Aggravated Medical Conditions  Pre-existing skin disorders, eye problems or impaired respiratory function.

Environmental hazard  See Section 12 for additional Ecological Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>&lt;8</td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>64-17-5</td>
<td>&lt;48</td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>67-63-0</td>
<td>&lt;8</td>
</tr>
<tr>
<td>Ammonia</td>
<td>7664-41-7</td>
<td>&lt;2</td>
</tr>
</tbody>
</table>
4. FIRST AID MEASURES

Eye contact  Flush with large amounts of cool running water for at least 15 minutes while holding upper and lower lids open. If irritation persists get medical attention immediately.

Skin contact  Wash with water after exposure. Wash contaminated clothing before rewearing. If irritation persists get medical attention If skin irritation persists, call a physician

Inhalation  Move to fresh air. Get medical attention if irritation persists.

Ingestion  Drink large amounts of water, Do not induce vomiting. Consult physician immediately for additional advice and treatment.

Notes to physician  Treat symptomatically

5. FIRE-FIGHTING MEASURES

Flammable Properties  FLAMMABLE

Flash point  80 °F

Suitable Extinguishing Media  Water Fog, Foam, CO2 or Dry Chemical.

Explosion Data

Sensitivity to Mechanical Impact none

Sensitivity to Static Discharge none

Protective Equipment and Precautions for Firefighters  As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

NFPA Health Hazard 2  Flammability 3  Stability 0

HMIS Health Hazard 2  Flammability 3  Physical Hazard 0

7. HANDLING AND STORAGE

Advice on safe handling  KEEP OUT OF REACH OF CHILDREN Open containers slowly to relieve any pressure Empty containers may contain product residue.

All safety precautions taken when handling this product should also be taken when handling empty drums and containers

Technical measures/Storage conditions  Store in a cool, dry area away from combustibles and reactive chemicals. Store away from sources of ignition.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Exposure Guidelines

Review Section 3 & 4 for Exposure Guidelines.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>TWA: 20 ppm</td>
<td>TWA: 50 ppm TWA: 240 mg/m³ S*</td>
<td>IDLH: 700 ppm TWA: 5 ppm TWA: 24 mg/m³</td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>STEL: 1000 ppm</td>
<td>TWA: 1000 ppm TWA: 1900 mg/m³</td>
<td>IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m³</td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>STEL: 400 ppm TWA: 200 ppm</td>
<td>TWA: 400 ppm TWA: 980 mg/m³</td>
<td>IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m³ STEL: 500 ppm STEL: 1225 mg/m³</td>
</tr>
<tr>
<td>Ammonia</td>
<td>STEL: 35 ppm TWA: 25 ppm</td>
<td>TWA: 50 ppm TWA: 35 mg/m³</td>
<td>IDLH: 300 ppm TWA: 25 ppm TWA: 18 mg/m³ STEL: 35 ppm STEL: 27 mg/m³</td>
</tr>
</tbody>
</table>

Engineering Measures

Showers
Eyewash stations
Ventilation systems

Personal Protective Equipment Institutional Environment

Eye/Face Protection
Safety glasses are suggested when using this product in heavy use and institutional environments.

Consumer Environments
Care should be taken to avoid Eye contact.

Skin and body protection
Rubber gloves

Respiratory protection
Unnecessary in open institutional environment.

Hygiene measures
Practice good personal hygiene. Wash after handling.

Personal Protective Equipment Industrial Environment

Eye/Face Protection
Splash-proof chemical goggles or face shield.

Skin and body protection
Impervious rubber, alkali-proof protective gloves Impervious rubber boots & apron.

Respiratory protection
If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene measures
Practice good personal hygiene. Wash after handling. Shower at end of work period

Practice good personal hygiene. Wash after handling

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>liquid</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Ammonia</td>
<td>No information available</td>
</tr>
<tr>
<td>Color</td>
<td>blue</td>
<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>pH</td>
<td>11.5-0.3</td>
<td>No information available</td>
</tr>
<tr>
<td>Melting/freezing point</td>
<td>Liquid</td>
<td>No information available</td>
</tr>
<tr>
<td>Freezing Point</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>Boiling point-boiling range</td>
<td>212 °F</td>
<td>No information available</td>
</tr>
<tr>
<td>Flash Point</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>1.6</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability Limits in Air</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>upper flammability limit</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>lower flammability limit</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>Explosion Limits</td>
<td></td>
<td>No information available</td>
</tr>
</tbody>
</table>
9.2 Other information

- **Softening point**: No information available
- **Molecular Weight**: No information available
- **VOC Content(%)**: No information available
- **Density VALUE**: No information available
- **Bulk Density VALUE**: No information available


10. STABILITY AND REACTIVITY

**Stability**: Stable

**Incompatible products**: Strong Oxidizers

**Conditions to Avoid**: None known based on information supplied

**Hazardous Decomposition Products**: None known based on information supplied

**Hazardous Polymerization**: Hazardous polymerization does not occur


11. TOXICOLOGICAL INFORMATION

**Acute toxicity**

**Product Information**: Product does not present an acute toxicity hazard based on known or supplied information.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>470 mg/kg (Rat)</td>
<td>220 mg/kg (Rabbit)</td>
<td>2.21 mg/L (Rat) 4 h 450 ppm (Rat) 4 h</td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>7060 mg/kg (Rat)</td>
<td>12800 mg/kg (Rat)</td>
<td>124.7 mg/L (Rat) 4 h</td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>4396 mg/kg (Rat)</td>
<td>12870 mg/kg (Rabbit)</td>
<td>72.6 mg/L (Rat) 4 h</td>
</tr>
<tr>
<td>Ammonia</td>
<td>350 mg/kg (Rat)</td>
<td></td>
<td>2000 ppm (Rat) 4 h 5.1 mg/L (Rat) 1 h</td>
</tr>
</tbody>
</table>

**Chronic toxicity**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>A3</td>
<td>Group 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>A3</td>
<td>Group 1</td>
<td>Known</td>
<td>X</td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>Group 1</td>
<td>Group 3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Page 4 / 8
Target Organ Effects

None known.

12. ECOLOGICAL INFORMATION

Ecotoxicity
The environmental impact of this product has not been fully investigated

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia and other aquatic invertebrates</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>1490: 96 h Lepomis macrochirus mg/L LC50 static 2950: 96 h Lepomis macrochirus mg/L LC50</td>
<td>1698 - 1940: 24 h Daphnia magna mg/L EC50 &gt;1000: 48 h Daphnia magna mg/L EC50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>12.0 - 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static 13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through 100: 96 h Pimephales promelas mg/L LC50 static</td>
<td>EC50 = 34634 mg/L 30 min EC50 = 35470 mg/L 5 min</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>1000: 72 h Desmodesmus subspicatus mg/L EC50 1000: 96 h Desmodesmus subspicatus mg/L EC50</td>
<td>13299: 48 h Daphnia magna mg/L EC50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ammonia</td>
<td>0.26 - 4.6: 96 h Lepomis macrochirus mg/L LC50 0.73 - 2.35: 96 h Pimephales promelas mg/L LC50 0.44: 96 h Cyprinus carpio mg/L LC50 1.17: 96 h Lepomis macrochirus mg/L LC50 flow-through 1.19: 96 h Poecilia reticulata mg/L LC50 5.9: 96 h Pimephales promelas mg/L LC50 static 1.5: 96 h Poecilia reticulata mg/L LC50</td>
<td>25.4: 48 h Daphnia magna mg/L LC50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods
This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements

Contaminated packaging
Do not re-use empty containers
### 14. TRANSPORT INFORMATION

#### Note
- NA1993, Consumer Commodity ORM-D

#### Dot Proper shipping name
- Regulated
- NA1993, Consumer Commodity ORM-D

#### TDG
- Not regulated

#### MEX
- Not regulated

#### ICAO
- Not regulated

#### ICAO/IATA
- Not regulated

#### IMDG / IMO
- Not regulated

#### RID
- Not regulated

#### ADR/RID
- Not regulated

#### ADN
- Not regulated

### 15. REGULATORY INFORMATION

**International Inventories**

- **TSCA**: TSCA
- **DSL**: Complies
- **NDSL**: Complies
- **EINECS**: Complies
- **ELINCS**: Complies
- **ENCS**: Complies
- **IECSC**: Complies
- **KECL**: Complies
- **PICCS**: Complies
- **AICS**: Complies

**U.S. Federal Regulations**

- **SARA 313**
- Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazard Categories**

- **Acute Health Hazard**: no
- **Chronic Health Hazard**: no
- **Fire Hazard**: no
**Sudden Release of Pressure Hazard**
No

**Reactive Hazard**
No

**Clean Water Act**
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia</td>
<td>100 lb</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

**CERCLA**
Any components listed below have been assigned a reportable quantity (RQ) by the Federal EPA. Release of the product into the environment that exceed the RQ for a particular component must be reported to the National Response Center at 1-800-424-8802.

**COMPONENT: Ammonia 100 lbs**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Hazardous Substances RQs</th>
<th>Extremely Hazardous Substances RQs</th>
<th>RQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia</td>
<td>100 lb</td>
<td>100 lb</td>
<td>RQ 100 lb final RQ RQ 45.4 kg final RQ</td>
</tr>
</tbody>
</table>

**U.S. State Regulations**

**California Proposition 65**
This product does not contain any Proposition 65 chemicals.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Prop. 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>Carcinogen</td>
</tr>
<tr>
<td></td>
<td>Developmental</td>
</tr>
</tbody>
</table>

**U.S. State Right-to-Know Regulations**

**International Regulations**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Carcinogen Status</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td></td>
<td>Mexico: TWA 26 ppm Mexico: TWA 120 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mexico: STEL 75 ppm Mexico: STEL 360 mg/m³</td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td></td>
<td>Mexico: TWA 1000 ppm Mexico: TWA 1900 mg/m³</td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td></td>
<td>Mexico: TWA 400 ppm Mexico: TWA 960 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mexico: STEL 500 ppm Mexico: STEL 1225 mg/m³</td>
</tr>
<tr>
<td>Ammonia</td>
<td></td>
<td>Mexico: TWA 25 ppm Mexico: TWA 18 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mexico: STEL 35 ppm Mexico: STEL 27 mg/m³</td>
</tr>
</tbody>
</table>

**Canada**

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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NPRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>X</td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>X</td>
</tr>
</tbody>
</table>
### 16. OTHER INFORMATION

**Prepared By**
Swisher Hygiene Inc.
4725 Piedmont Row Drive
Suite 400
Charlotte, NC 28210

**Issuing date**
11-Oct-2011

**Revision Date**
11-Oct-2011

**Revision Note**
No information available

**Disclaimer**
The information provided on this MSDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

---

**End of Material Safety Data Sheet**