1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Swisher Glass Kleen
Product code: 41896-1
UN/ID No: NA 1993
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.

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Thin Liquid</th>
<th>Physical state</th>
<th>liquid.</th>
<th>Odor</th>
<th>Ammonia</th>
</tr>
</thead>
</table>

Potential Health Effects

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eyes</td>
<td>Contact irritation and tearing.</td>
<td></td>
</tr>
<tr>
<td>Skin</td>
<td>Prolonged skin contact may cause skin irritation</td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td>Irritating to respiratory system</td>
<td></td>
</tr>
<tr>
<td>Ingestion</td>
<td>Gastro intestinal irritaiton, if swallowed nausea and headache</td>
<td></td>
</tr>
</tbody>
</table>

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>
</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. 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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions  
Ensure adequate ventilation

Environmental precautions  
Try to prevent the material from entering drains or water courses

Methods for Containment  
Transfer contaminated absorbent, soil and other materials to containers for disposal

Methods for cleaning up  
Stop spill or leak if it can be done safely. Contain spill to smallest possible area. Large spills should be recovered for disposal.

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, 111-76-2</td>
<td>TWA: 20 ppm</td>
<td>TWA: 50 ppm</td>
<td>TWA: 240 mg/m³ S*</td>
</tr>
<tr>
<td>Ethyl alcohol, 64-17-5</td>
<td>STEL: 1000 ppm</td>
<td>TWA: 1000 ppm</td>
<td>TWA: 1900 mg/m³</td>
</tr>
<tr>
<td>Isopropyl alcohol, 67-63-0</td>
<td>STEL: 400 ppm</td>
<td>STEL: 200 ppm</td>
<td>TWA: 980 mg/m³</td>
</tr>
<tr>
<td>Ammonia, 7664-41-7</td>
<td>STEL: 35 ppm</td>
<td>TWA: 25 ppm</td>
<td>TWA: 35 mg/m³</td>
</tr>
</tbody>
</table>

Engineering Measures
Shower
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

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</th>
<th>Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Thin Liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>blue</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

Softening point  
Molecular Weight  
VOC Content(%)  
Density VALUE  
Bulk Density VALUE  

10. STABILITY AND REACTIVITY

Stability  
Incompatible products  
Conditions to Avoid  
Hazardous Decomposition Products  
Hazardous Polymerization  

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product Information  

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD50 Oral (mg/kg)</th>
<th>LD50 Dermal (mg/kg)</th>
<th>LC50 Inhalation (mg/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>470 rat</td>
<td>220 rabbit</td>
<td>2.21 rat, 450 ppm</td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>7060 rat</td>
<td>12870 rabbit</td>
<td>124.7 rat</td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>4396 rat</td>
<td>12870 rabbit</td>
<td>72.6 rat</td>
</tr>
<tr>
<td>Ammonia</td>
<td>350 rat</td>
<td></td>
<td>2000 ppm</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>Known</td>
<td>X</td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>A3</td>
<td>Group 1</td>
<td>Known</td>
<td>X</td>
</tr>
</tbody>
</table>
Isopropyl alcohol | Group 1 | Group 3 | X

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></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>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td></td>
<td>12.0 - 16.0: 96 h Oncorhynchus mykiss mg/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>10800: 24 h Daphnia magna mg/L EC50 2: 48 h Daphnia magna mg/L EC50 Static 9268 - 14221: 48 h Daphnia magna mg/L LC50</td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>1000: 72 h Desmodesmus subspicatus mg/L EC50 11130: 96 h Pimephales promelas mg/L LC50 static 9640: 96 h Pimephales promelas mg/L LC50 flow-through 1400000: 96 h Lepomis macrochirus µg/L LC50</td>
<td>13299: 48 h Daphnia magna mg/L EC50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ammonia</td>
<td></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 static 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>
</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**

**Dot**
- **Proper shipping name**: NA1993, Flammable Liquids, N. O. S. (contains Ethyl Alcohol), 173.150 Consumer Commodity ORM-D, 3, PG III
- **Hazard class**: 3
- **UN/ID No**: NA 1993
- **Packing Group**: III

**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**
- **DSL**
- **NDSL**
- **EINECS**
- **ELINCS**
- **ENCS**
- **IECSC**
- **KECL**
- **PICCS**
- **AICS**

**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</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></td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ammonia</td>
<td></td>
<td></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