1. IDENTIFICATION

Product Identifier
Product Name Glass Cleaner, Ammonia

Other means of identification
SDS # 10444

Recommended use of the chemical and restrictions on use
Recommended Use Cleaning Compound

Details of the supplier of the safety data sheet
Supplier Address Lundmark Wax Company
350 S La Londe Ave
Addison, IL 60101

Emergency Telephone Number
Company Phone Number (630) 628-1199
Emergency Telephone (24 hr) 800-535-5053 Infotrac

2. HAZARDS IDENTIFICATION

Physical State Liquid

Classification

| Skin corrosion/irritation | Category 2 |

Hazards Not Otherwise Classified (HNOC)
None

Signal Word Warning

Hazard Statements
Causes skin irritation
Precautionary Statements – Prevention
Wear protective gloves/protective clothing/eye protection/face protection. Wash face, hands and any exposed skin thoroughly after handling.

Precautionary Statements – Response
IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

Other Hazards
None Known

3. COMPOSITION/INFORMATION ON INGREDIENTS

<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>1-5</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>67-63-0</td>
<td>1-5</td>
</tr>
<tr>
<td>Ammonia</td>
<td>1336-21-6</td>
<td>&lt;1</td>
</tr>
</tbody>
</table>

**If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.**

4. FIRST-AID MEASURES

First Aid Measures

Eye Contact
Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin Contact
Wash with soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.

Inhalation
Remove to fresh air.

Ingestion
Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects

Symptoms
Contact may cause irritation and redness.

Indication of any immediate medical attention and special treatment needed

Notes to Physician
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media
Not determined.

Specific Hazards Arising from the Chemical
Non-flammable solution.

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, protective equipment and emergency procedures

Personal Precautions
Use personal protective equipment as required.

Methods and material for containment and cleaning up

Methods for Containment
Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up
Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling
Use personal protection recommended in Section 8. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid breathing vapors or mists.

Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Materials
None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines
Exposure limits noted for ingredient(s)

<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: 25 ppm</td>
<td>TWA: 50 ppm</td>
<td>-</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>TWA: 200 ppm</td>
<td>980 mg/M3 400 ppm</td>
<td>-</td>
</tr>
<tr>
<td>Ammonia</td>
<td>-</td>
<td>50 ppm</td>
<td>-</td>
</tr>
</tbody>
</table>

Appropriate engineering controls

Engineering Controls
Apply technical measures to comply with the occupational exposure limits.

Individual protection measures, such as personal protective equipment

Eye/Face Protection
Avoid contact with eyes.

Skin and Body Protection
Wear suitable protective clothing.

Respiratory Protection
Ensure adequate ventilation, especially in confined areas.

General Hygiene Considerations
Handle in accordance with good industrial hygiene and safety practice.
9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Boiling Point/Boiling Range</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Flammability (Solid, Gas)</td>
<td>n/a-liquid</td>
<td></td>
</tr>
<tr>
<td>Upper Flammability Limits</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Lower Flammability Limit</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Kinematic Viscosity</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Dynamic Viscosity</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>Not determined</td>
<td></td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions.

Chemical Stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to Avoid
Keep out of reach of children.

Incompatible Materials
None known based on information supplied.

Hazardous Decomposition Products
None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact
Avoid contact with eyes.

Skin Contact
May cause an allergic skin reaction. Causes skin irritation. May be harmful in contact with skin.
### Inhalation
Avoid breathing vapors or mists.

### Ingestion
Do not taste or swallow.

#### Component Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD₅₀</th>
<th>Dermal LD₅₀</th>
<th>Inhalation LC₅₀</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol 111-76-2</td>
<td>= 470 mg/kg (Rat)</td>
<td>= 2270 mg/kg (Rat)</td>
<td>= 2.21 mg/L (Rat) 4 h = 450 ppm (Rat) 4 h</td>
</tr>
<tr>
<td>Isopropanol 67-63-0</td>
<td>= 5840 mg/Kg (Rat)</td>
<td>&gt; 12800 mg/Kg (Rabbit)</td>
<td>&gt; 10000 ppm, 6h, Vapor rat</td>
</tr>
<tr>
<td>Ammonia Hydroxide: 1336-21-6</td>
<td>350 mg/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

#### Information on physical, chemical and toxicological effects

##### Symptoms
Please see section 4 of this SDS for symptoms.

##### Delayed and immediate effects as well as chronic effects from short and long-term exposure

#### Carcinogenicity
Not classifiable as a human carcinogen.

#### Ecological Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Toxicity to microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol 111-76-2</td>
<td>1490: 96 h Lepomis macrorychus mg/L LC₅₀ static 2950: 96 h Lepomis macrorychus mg/L LC₅₀</td>
<td>1698 - 1940: 24 h Daphnia magna mg/L EC₅₀ 1000: 48 h Daphnia magna mg/L EC₅₀</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Isopropanol 67-63-0</td>
<td>ErC₅₀ green algae, static test, growth rate inhibition, 72 h: &gt;1000 mg/L</td>
<td>LC₅₀ fathead minnow, flow-through test, 96h: 9640 mg/L</td>
<td>-</td>
<td>LC₅₀ water flea, immobilization, 24 h: &gt;1000 mg/L</td>
</tr>
<tr>
<td>Ammonia Hydroxide: 1336-21-6</td>
<td>3.5 mg/L: NOEC – Oncorhynchus tshawytscha; 3 d</td>
<td>-</td>
<td>-</td>
<td>EC₅₀: Daphnia 32 mg/L 50h</td>
</tr>
</tbody>
</table>

#### Persistence/Degradability
Not determined.

#### Bioaccumulation
Not determined.

#### Mobility

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Partition Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol 111-76-2</td>
<td>0.81</td>
</tr>
<tr>
<td>Isopropanol 67-63-0</td>
<td>1.1</td>
</tr>
</tbody>
</table>
Other Adverse Effects
Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes
Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging
Disposal should be in accordance with applicable regional, national and local laws and regulations.

California Hazardous Waste Status

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Hazardous Waste Status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

Note
Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT
Not regulated

IATA
Not regulated

IMDG
Marine Pollutant
This material may meet the definition of a marine pollutant

15. REGULATORY INFORMATION

International Inventories
Not determined

US Federal Regulations

SARA 313
This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372).

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
<th>SARA 313 - Threshold Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>1-5</td>
<td>1.0</td>
</tr>
</tbody>
</table>

US State Regulations

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Isopropanol: 67-63-0</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Ammonia Hydroxide</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

16. OTHER INFORMATION
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.

End of Safety Data Sheet