1. IDENTIFICATION

Product Identifier
Product Name Lens Cleaner

Other means of identification
SDS # HLC-001
Product Numbers LCS1

Recommended use of the chemical and restrictions on use
Recommended Use Eyeglass lens cleaner.

Details of the supplier of the safety data sheet
Supplier Address MCR Safety
1255 W Schilling Blvd.
Collierville, TN 38017

Emergency Telephone Number
Company Phone Number 1-508-699-4406
Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Clear, pale pink or pale blue
Physical State Liquid
Odor Mild citrus

Classification
The information below is for the liquid in industrial quantities when used in an industrial setting. The solution as packed in a consumer quantity is considered a consumer good and when used as intended is unlikely to present a hazard

Hazards Not Otherwise Classified (HNOC)
Causes mild skin irritation

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene Glycol Monobutyl Ether</td>
<td>111-76-2</td>
<td>5-15</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 cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Skin Contact Wash with soap and water.
Inhalation  Remove to fresh air.
Ingestion  Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects

Symptoms  Causes mild skin irritation.

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
Not determined.

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  Avoid contact with skin, eyes or clothing.

Environmental Precautions  See Section 12 for additional Ecological Information.

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  Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling  Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin and eyes. Keep out of the reach of children.

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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene Glycol Monobutyl Ether</td>
<td>TWA: 20 ppm</td>
<td>TWA: 50 ppm</td>
<td>IDLH: 700 ppm</td>
</tr>
<tr>
<td>111-76-2</td>
<td></td>
<td>TWA: 240 mg/m³</td>
<td>TWA: 5 ppm</td>
</tr>
<tr>
<td></td>
<td>(vacated) TWA: 25 ppm</td>
<td>(vacated) TWA: 120 mg/m³</td>
<td>TWA: 24 mg/m³</td>
</tr>
<tr>
<td></td>
<td>S*</td>
<td>S*</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>Clear, pale pink or pale blue liquid</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>Clear, pale pink or pale blue</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Mild citrus</td>
<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>7</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>100 °C / 210 °F</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>Not determined</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>1.3</td>
<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.010</td>
<td></td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Soluble in water</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>
</tbody>
</table>
Decomposition Temperature | Not determined
---|---
Kinematic Viscosity | Not determined
Dynamic Viscosity | Not determined
Explosive Properties | Not determined
Oxidizing Properties | Not determined
VOC Content | 5.09

**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.

Hazardous Polymerization | Hazardous polymerization does not occur.

**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 | Causes mild skin irritation.
Inhalation | Do not inhale.
Ingestion | Do not ingest.

**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>Ethylene Glycol Monobutyl Ether 111-76-2</td>
<td>470 mg/kg (Rat)</td>
<td>2270 mg/kg (Rat)</td>
<td>220 mg/kg (Rabbit)</td>
</tr>
<tr>
<td>Sodium Bicarbonate 144-55-8</td>
<td>4220 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

Group 3 IARC components are "not classifiable as human carcinogens".

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene Glycol Mono-</td>
<td>A3</td>
<td>Group 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>obutyl Ether 111-76-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Legend**

ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 3 IARC components are "not classifiable as human carcinogens"

**Numerical measures of toxicity**

Not determined

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12. ECOLOGICAL INFORMATION

**Ecotoxicity**

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

**Component 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>Ethylene Glycol Mono-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>obutyl Ether 111-76-2</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</td>
<td></td>
</tr>
<tr>
<td>Sodium Bicarbonate 144-55-8</td>
<td>650: 120 h Nitzschia linearis mg/L EC50</td>
<td>8250 - 9000: 96 h Lepomis macrochirus mg/L LC50 static</td>
<td>2350: 48 h Daphnia magna mg/L EC50</td>
<td></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>Ethylene Glycol Mono-</td>
<td>0.81</td>
</tr>
<tr>
<td>obutyl Ether 111-76-2</td>
<td></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.

---

14. TRANSPORT INFORMATION

**Note**

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

International Inventories

TSCA  
Complies

DSL  
Does not comply

NDSL  
Does not comply

EINECS  
Does not comply

ELINCS  
Does not comply

ENCS  
Does not comply

IECSC  
Does not comply

KECL  
Does not comply

PICCS  
Does not comply

AICS  
Does not comply

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECS - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

<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>Ethylene Glycol Monobutyl Ether - 111-76-2</td>
<td>111-76-2</td>
<td>5-15</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>Ethylene Glycol Monobutyl Ether 111-76-2</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Special Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Physical Hazards</th>
<th>Personal Protection</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

Issue Date: 18-Jul-2006
Revision Date: 18-Jul-2014
Revision Note: New format

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