1. IDENTIFICATION

Product Identifier
Product Name: Lemon Detergent Disinfectant

Other Means of Identification
Product Code: 047000

Recommended Use of the Chemical and Restrictions on Use
Recommended Use: Disinfectant concentrate. For industrial use.

Details of the Supplier of the Safety Data Sheet
Midlab, Inc.
140 Private Brand Way
Athens, TN 37303

Emergency Telephone Number
Company Phone Number: Phone: 1-423-337-3180
Emergency Telephone (24 hr): INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance: Yellow
Physical State: Liquid
Odor: Lemon

Classification
- Skin Corrosion/Irritation: Category 1
- Serious Eye Damage/Eye Irritation: Category 1
- Aquatic Toxicity: Acute: Category 2

Signal Word
Danger

Hazard Statements
Causes severe skin burns and eye damage.
Causes serious eye damage.
Toxic to aquatic life.
Precautionary Statements - Prevention
Do not breathe spray or mists.  
Wash face, hands and any exposed skin thoroughly after handling.  
Wear protective gloves and eye protection.  
Avoid release to the environment.

Precautionary Statements - Response
IF SWALLOWED:  Rinse mouth.  Do NOT induce vomiting.  
IF IN EYES:  Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Immediately call a POISON CENTER or doctor/physician.  
IF ON SKIN (or hair):  Remove immediately all contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse.  
IF INHALED:  Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
Immediately call a POISON CENTER or doctor/physician.  
Specific treatment:  Remove from exposure and treat symptoms.

Precautionary Statements - Storage
Store locked up.

Precautionary Statements - Disposal
Dispose of contents/container in accordance with local, regional, and/or national regulations.

Other Hazards
None known.

Unknown Acute Toxicity
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>Water</td>
<td>7732-18-5</td>
<td>60-100</td>
</tr>
<tr>
<td>Nonylphenoxypolyethoxyethanol</td>
<td>68412-54-4</td>
<td>1-5</td>
</tr>
<tr>
<td>Sodium Carbonate</td>
<td>497-19-8</td>
<td>1-5</td>
</tr>
<tr>
<td>Alkyl Dimethyl Benzyl Ammonium Chloride (C\textsubscript{12-18})</td>
<td>68391-01-5</td>
<td>1-5</td>
</tr>
<tr>
<td>Alkyl Dimethyl Ethyl Benzyl Ammonium Chloride (C\textsubscript{12-14})</td>
<td>85409-23-0</td>
<td>1-5</td>
</tr>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>0.1-1</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**  
Causes irritation and/or burns and may result in permanent injury to eyes including blindness. Immediately flush eyes with water for 15-20 minutes, while holding eyelids open. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Seek medical attention at once.

**Skin Contact**  
Causes irritation and/or corrosive burns. Brief exposure may cause irritation and defatting of the skin. Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.

**Inhalation**  
Mists and vapors can irritate the throat and respiratory tract. High vapor concentrations may cause central nervous system effects. Symptoms may include headaches, dizziness, drowsiness, and death. If symptoms are experienced, move victim to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison center or doctor for further treatment advice.

**Ingestion**  
Although of moderate to low toxicity, ingestion can cause gastrointestinal irritation, nausea, vomiting, diarrhea, and death. Call a poison control center or doctor immediately for further treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
Combustion products are toxic. Not determined.

**Most Important Symptoms and Effects**

**Symptoms**
Causes burns to the eyes and skin.

**Indication of Any Immediate Medical Attention and Special Treatment Needed**

**Notes to Physician**
Treat symptomatically. Probable mucosal damage may contraindicate the use of gastric lavage.

### 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**

**Unsuitable Extinguishing Media**
Not determined.

**Specific Hazards Arising from the Chemical**
Irritating and toxic gases or fumes may be released during a fire.

**Hazardous Combustion Products**
Combustion products are toxic.

**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**
Wear protective clothing as described in Section 8 of this safety data sheet.

**Environmental Precautions**
Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13, Disposal Considerations, for additional information. See Section 12 for additional Ecological Information.

**Methods and Material for Containment and Cleaning Up**

**Methods for Containment**
Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.

**Methods for Clean-Up**
Contain and collect with an inert absorbent and place into an appropriate container for disposal. Rinse area with clean water and dry before permitting traffic.

### 7. HANDLING AND STORAGE

**Precautions for Safe Handling**

**Advice on Safe Handling**
Handle in accordance with good industrial hygiene and safety practice. Use personal protection recommended in Section 8. For industrial and commercial use only. Avoid contact with skin, eyes or clothing.

**Conditions for Safe Storage, Including Any Incompatibilities**

**Storage Conditions**
Keep container tightly closed and store in a cool, dry and well-ventilated place. Protect from freezing. Do not handle or store near an open flame, heat or other source of ignition. Prevent electrostatic charge buildup by using common bonding and grounding techniques. Keep out of the reach of children.

**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>Ethanol 64-17-5</td>
<td>1000ppm</td>
<td>1000ppm</td>
<td>1000ppm</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls

Engineering Controls
Ensure adequate ventilation, especially in confined areas. Good general room ventilation (equivalent to outdoors) should be adequate under normal conditions. Eyewash stations. Showers.

Individual Protection Measures, such as Personal Protective Equipment

Eye/Face Protection
Eye protection should be used when splashing may occur.

Skin and Body Protection
Wear protective gloves when handling this product.

Respiratory Protection
Under normal conditions, respirator is not normally required. Avoid breathing vapors.

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>Physical State</th>
<th>Appearance</th>
<th>Color</th>
<th>Odor</th>
<th>Odor Threshold</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid</td>
<td>Clear</td>
<td>Yellow</td>
<td>Lemon</td>
<td>Not determined</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH (concentrate)</td>
<td>11.5-12.0</td>
<td>Pensky Martin Closed Cup</td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>Approximately 32°F</td>
<td></td>
</tr>
<tr>
<td>Boiling Point/Boiling Range</td>
<td>Approximately 212°F</td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt;2000°F (&gt;100°C)</td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Flammability (Solid, Gas)</td>
<td>Liquid—not applicable</td>
<td></td>
</tr>
<tr>
<td>Upper Flammability Limits</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Lower Flammability Limit</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Estimated to be heavier than air</td>
<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.03</td>
<td></td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Completely soluble</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 an explosive</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.

Hazardous Polymerization
Hazardous polymerization does not occur.

Conditions to Avoid
Keep out of reach of children. Keep from freezing. Keep away from heat and strong oxidizing agents.

Incompatible Materials
Strong oxidizing agents (may result in fire), reducing agents.

Hazardous Decomposition Products
Thermal decomposition may produce carbon monoxide, carbon dioxide, and toxic chloride vapors.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Product Information

Eye Contact
Avoid contact with eyes. Corrosive

Skin Contact
Avoid contact with skin. Corrosive

Inhalation
Avoid breathing vapors or mists.

Ingestion
Do not taste or swallow.

Chronic Effects
Ingestion of ethanol by pregnant women can cause reproductive toxicity to the fetus.

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>Product as a whole</td>
<td>&gt;1890mg/kg (Rat)</td>
<td>&gt;2000mg/kg (Rabbit)</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
This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Numerical Measures of Toxicity
Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

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>Product as a whole</td>
<td>No data available for this product, but it is considered toxic to fish.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Persistence/Degradability
Not expected to persist.

Bioaccumulation
Not expected to bioaccumulate.
13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes
This substance, when discarded or disposed of, is a characteristic hazardous waste according to Federal regulation (40 CFR 261) and is assigned the EPA Hazardous Waste Number of D001. The discarding or disposal of this material must be done at a properly permitted facility in accordance with the regulations of 40 CFR 262, 263, 264, and 268. Additionally, the discarding or disposal of this material may be further regulated by state, regional, or local regulations. Chemical additions, processing or otherwise altering this material may make the waste management information presented in the SDS incomplete, inaccurate or otherwise inappropriate.

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.

DOT
NOI Non-Hazardous

IATA

IMDG

15. REGULATORY INFORMATION

International Inventories
Not determined

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
IECESC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

CERCLA
None Listed

SARA 311/312 Hazard Categories
Immediate Fire.

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

CWA (Clean Water Act)
None known.

US State Regulations
None known

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

The following ingredients appear on various state right to know lists and/or California’s Proposition 65 List:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>State List</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzyl Chloride 100-44-7 Trace&lt;10ppm</td>
<td>AZ, CA, CAP65, CT, FL, ID, MA, MN, NJ, PA, RI</td>
</tr>
<tr>
<td>Ethanol 64-17-5 &lt;0.5%</td>
<td>AZ, CA, CT, FL, ID, MA, MN, NJ, PA, RI</td>
</tr>
</tbody>
</table>

- AZ: Arizona Ambient Air Quality Guidelines
- CT: Connecticut Hazardous Air Pollutants
- CA: California Director’s List of Hazardous Substances
- CAP65: California Prop65
- FL: Florida Substances List
- ID: Idaho Non-Carcinogen Toxic Air Pollutants
- IL: Illinois Toxic Air Contaminate: Carcinogenic
- MA: Massachusetts Right to Know List
- MN: Minnesota Hazardous Substances List
- NJ: New Jersey Right to Know List
- PA: Pennsylvania Right to Know List
- RI: Rhode Island Hazardous Substances List

### FIFRA Label Information:

This chemical is a pesticide product registered by the United States Environmental Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The pesticide label also includes other important information, including directions for use.

Danger
Corrosive
Causes irreversible eye damage and skin burns.
Harmful if swallowed, inhaled or absorbed through the skin.

This product is toxic to fish and aquatic invertebrates.

### 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></td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</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>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td></td>
<td>0</td>
<td>0</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

Issue Date: 08-Aug-2011
Revision Date: 02-Dec-2013
Revision Note: Update format Version 1.0

### 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.

Keep Out of Reach of Children. For Industrial and Institutional Use Only.

*Denotes changes from last version.

End of Safety Data Sheet