1. IDENTIFICATION

Product Identifier
Product Name Thunder & Lightning

Other Means of Identification
Product Code 062800

Recommended use of the Chemical and Restrictions on Use
Recommended Use Degreaser cleaner 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 Citrus

Classification

<table>
<thead>
<tr>
<th>Skin corrosion/irritation</th>
<th>Category 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2 Sub-Category A</td>
</tr>
</tbody>
</table>

Signal Word Warning

Hazard Statements Causes mild skin irritation. Causes serious eye irritation.

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling. Wear eye protection/face protection.

Precautionary Statements - Response
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: get medical advice/attention. IF ON SKIN: If skin irritation occurs: get medical advice/attention.

Precautionary Statements - Storage
No other means specified.

Precautionary Statements - Disposal
No other means specified.
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>Ethylene Glycol Monobutyl Ether</td>
<td>111-76-2</td>
<td>5-10</td>
</tr>
<tr>
<td>Tetrapotassium Pyrophosphate</td>
<td>7320-34-5</td>
<td>1-5</td>
</tr>
<tr>
<td>Monoethanolamine</td>
<td>141-43-5</td>
<td>1-5</td>
</tr>
<tr>
<td>Trisodium Nitrilotriacetate Monohydrate</td>
<td>18662-53-8</td>
<td>1-5</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 immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek medical attention/advice if irritation persists.

Skin Contact  
Wash with soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse.

Inhalation  
Remove to fresh air. Seek immediate medical attention/advice.

Ingestion  
Rinse mouth. Do not induce vomiting. Drink plenty of water. Seek medical advice.

Most important Symptoms and Effects

Symptoms  
Exposed individuals may experience eye tearing, redness and discomfort. 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

Water spray (fog). Carbon dioxide (CO2). Dry chemical. Foam.

Unsuitable Extinguishing Media

Not determined.

Specific Hazards Arising from the Chemical

None known.

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 protection recommended in Section 8.

Environmental Precautions  
Avoid release to the environment.

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 Collect in a clean, dry waste container for disposal. Dispose of in accordance with federal, state and local regulations. Use a water rinse for final clean up.

### 7. HANDLING AND STORAGE

**Precautions for Safe Handling**

**Advice on Safe Handling** Wash thoroughly after handling. Use personal protection recommended in Section 8. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practice.

**Conditions for Safe Storage, including any Incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep locked up and out of reach of children. Protect from freezing.

**Incompatible Materials** Acids.

### 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>
</table>
| Ethylene Glycol Monobutyl Ether 111-76-2           | TWA: 20 ppm| TWA: 50 ppm
(labeled) TWA: 25 ppm
(vacated) TWA: 120 mg/m³
(vacated) S* |
| Monoethanolamine 141-43-5                          | STEL: 6 ppm TWA: 3 ppm |
(labeled) TWA: 3 ppm
(vacated) TWA: 6 mg/m³
(vacated) TWA: 8 mg/m³
(vacated) STEL: 6 ppm |
(vacated) STEL: 15 mg/m³|

**Appropriate Engineering Controls**

**Engineering Controls** General ventilation sufficient.

**Individual Protection Measures, such as Personal Protective Equipment**

**Eye/Face Protection** Splash goggles or safety glasses.

**Skin and Body Protection** Chemical resistant protective gloves.

**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</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>Yellow</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Citrus</td>
<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>12.5-13.0</td>
<td></td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>~ 0 °C / ~32 °F</td>
<td></td>
</tr>
<tr>
<td>Boiling Point/Boiling Range</td>
<td>100 °C / 212 °F</td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate</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. Keep from freezing.

Incompatible Materials
Acids.

Hazardous Decomposition Products
When exposed to fire, produces normal products of combustion.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Product Information

Eye Contact Causes serious eye irritation

Skin Contact May cause skin irritation.

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>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>Tetrapotassium Pyrophosphate 7320-34-5</td>
<td>2980 mg/kg (Rat)</td>
<td>&gt;7940 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>Monoethanolamine 141-43-5</td>
<td>1720 mg/kg (Rat)</td>
<td>1 mL/kg (Rabbit)</td>
<td>1025 mg/kg (Rabbit)</td>
</tr>
<tr>
<td>Trisodium Nitritriacetate Monohydrate 18662-53-8</td>
<td>1450 mg/kg (Rat)</td>
<td>&gt;10000 mg/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
Not classifiable as a human carcinogen.

<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 Monobutyl Ether 111-76-2</td>
<td>-</td>
<td>A3</td>
<td>Group 3</td>
<td>-</td>
</tr>
<tr>
<td>Trisodium Nitrilotriacetate Monohydrate 18662-53-8</td>
<td>-</td>
<td>X</td>
<td>X</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”
IARC (International Agency for Research on Cancer)
“Possibly carcinogenic to humans”
NTP (National Toxicological Program)
“May reasonably be anticipated to be” carcinogenic

Numerical Measures of Toxicity
Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

<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 Monobutyl Ether 111-76-2</td>
<td>-</td>
<td>1490: 96 h Lepomis macrochirrus mg/L LC50 static 2950: 96 h Lepomis macrochirrus mg/L LC50</td>
<td>-</td>
<td>1698 - 1940: 24 h Daphnia magna mg/L EC50 1000: 48 h Daphnia magna mg/L EC50</td>
</tr>
<tr>
<td>Tetrapotassium Pyrophosphate 7320-34-5</td>
<td>-</td>
<td>&gt; 100 mg/L (96hr) Rainbow Trout</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Monoethanolamine 141-43-5</td>
<td>15: 72 h Desmodesmus subspicatus mg/L EC50</td>
<td>227: 96 h Pimephales promelas mg/L LC50 flow-through 3684: 96 h Brachydanio rerio mg/L LC50 static 300 - 1000: 96 h Lepomis macrochirrus mg/L LC50 static 114 - 196: 96 h Oncorhynchus mykiss mg/L LC50 static 200: 96 h Oncorhynchus mykiss mg/L LC50 flow-through</td>
<td>-</td>
<td>65: 48 h Daphnia magna mg/L EC50</td>
</tr>
<tr>
<td>Trisodium Nitrilotriacetate Monohydrate 18662-53-8</td>
<td>= 780 mg/L (96hr) Chlorella vulgaris</td>
<td>= 98 mg/L (96hr) Oncorhynchus mykiss</td>
<td>-</td>
<td>= 780 mg/L (48hr) Daphnia magna</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 Monobutyl Ether 111-76-2</td>
<td>0.81</td>
</tr>
<tr>
<td>Monoethanolamine 141-43-5</td>
<td>-1.91</td>
</tr>
</tbody>
</table>
Other Adverse Effects
Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

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

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

14. TRANSPORT INFORMATION

DOT
Not regulated

IATA
Not regulated

IMDG
Not regulated

15. REGULATORY INFORMATION

International Inventories
Not determined

US Federal Regulations

SARA 311/312 Hazard Categories

Acute Health Hazard
Yes

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 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>Ethylene Glycol Monobutyl Ether</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>State List</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene Glycol Monobutyl Ether 111-76-2</td>
<td>MA, NJ, PA</td>
</tr>
<tr>
<td>Monoethanolamine 141-43-5</td>
<td>MA, NJ, PA</td>
</tr>
<tr>
<td>Trisodium Nitrilotriacetate Monohydrate 18662-53-8</td>
<td>CAP65</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 Prop 65
FL – Florida Substances List
ID – Idaho Non-Carcinogen Toxic Air Pollutants
IL – Illinois Toxic Air Contaminate – Carcinogenic
IL – Illinois Toxic Air Contaminate – Noncarcinogenic
MA – Massachusetts Right to Know Lists
MN – Minnesota Hazardous Substances Lists
NAP – New Jersey Right to Know List
NJ – New Jersey Right to Know List
PA – Pennsylvania Right to Know List
RI – Rhode Island Hazardous Substances Lists
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></td>
<td>2</td>
<td></td>
<td>0</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

Issue Date: 25-Mar-2013
Revision Date: 15-Sep-2014
Revision Note: New 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