1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier
Product Name United 316 TOWERMATE

Other means of identification
SDS # UNITED-316

Recommended use of the chemical and restrictions on use
Recommended Use Liquid Cooling Tower Treatment.
Uses Advised Against For industrial and institutional use only.

Details of the supplier of the safety data sheet
Supplier Address United Laboratories, Inc.
320 37th Avenue
St. Charles, IL 60174
www.unitedlabsinc.com
www.unitedlabsinc.ca

Emergency Telephone Number
Company Phone Number 800-323-2594 (to reorder)
Emergency Telephone (24 hr) INFOTRAC 1-800-535-5053 (North America)
1-352-323-3500 (International)

2. HAZARDS IDENTIFICATION

Appearance Brown liquid
Physical State Liquid
Odor Sharp, acrid odor

Classification
Skin corrosion/irritation Category 1
Serious eye damage/eye irritation Category 1

Signal Word
Danger

Hazard Statements
Causes severe skin burns and eye damage.

Precautionary Statements - Prevention
Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statements - Response
Immediately call a poison center or doctor/physician.
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/Take off immediately all contaminated clothing. Rinse skin with water/shower. 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.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

**Precautionary Statements - Storage**
Store locked up.

**Precautionary Statements - Disposal**
Dispose of contents/container to an approved waste disposal plant.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary</td>
<td>Proprietary</td>
<td>&lt;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**

**General Advice**
Immediately call a poison center or doctor/physician.

**Eye Contact**
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.

**Skin Contact**
Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

**Inhalation**
Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.

**Ingestion**
Rinse mouth. Do not induce vomiting.

**Most important symptoms and effects**

**Symptoms**
Causes severe skin burns and eye damage.

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician**
Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**

**Unsuitable Extinguishing Media**
Not determined.

**Specific Hazards Arising from the Chemical**
None known.

**Hazardous Combustion Products**
When strongly heated, as in a fire, this product may produce carbon monoxide, carbon dioxide, nitrogen oxides and oxides of phosphorous.
**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**: Spills should be collected to prevent contamination of waterways. Dike spill and recover quickly into suitable containers. Flush residual with large amounts of water.

### 7. HANDLING AND STORAGE

**Precautions for safe handling**

- **Advice on Safe Handling**: Handle in accordance with good industrial hygiene and safety practice. Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing and eye/face protection.

**Conditions for safe storage, including any incompatibilities**

- **Storage Conditions**: Store locked up. Keep this product in a properly labeled, tightly closed container. Do not allow this product to freeze, as the container may split or rupture.
- **Incompatible Materials**: Acids. Strong oxidizing agents.

### 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>Proprietary</td>
<td>Ceiling: 2 mg/m³</td>
<td>(vacated) Ceiling: 2 mg/m³</td>
<td>Ceiling: 2 mg/m³</td>
</tr>
</tbody>
</table>

**Appropriate engineering controls**

- **Engineering Controls**: Mechanical ventilation not normally required and local exhaust is generally adequate to maintain airborne concentrations below OSHA PELs. Eyewash stations. Showers.

**Individual protection measures, such as personal protective equipment**

- **Eye/Face Protection**: Safety goggles are recommended.
- **Skin and Body Protection**: Chemical resistant gloves are recommended. Long shirt sleeves are recommended.
- **Respiratory Protection**: Use with adequate ventilation and 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>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>Brown liquid</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>Brown</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Sharp, acrid odor</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>11.5-12.5</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 / ~212 °F</td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>~1 (Water = 1)</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>N/A</td>
<td></td>
</tr>
<tr>
<td>Lower Flammability Limit</td>
<td>N/A</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>1.065 (Water = 1)</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 determined</td>
<td></td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>VOC Content</td>
<td>None</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
Under normal conditions of storage and use, hazardous polymerization will not occur.

Conditions to Avoid
Incompatible Materials.

Incompatible Materials
Acids. Strong oxidizing agents.

Hazardous Decomposition Products
Thermal decomposition may release carbon dioxide, carbon monoxide, nitrogen oxides and oxides of phosphorus.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact
Causes severe eye damage.
Skin Contact
Causes severe skin burns.
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>Proprietary</td>
<td>= 2100 mg/kg (Rat)</td>
<td>&gt; 6310 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>Proprietary</td>
<td>= 284 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
Based on the information provided, 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
Not determined.

Persistence/Degradability
Not determined.

Bioaccumulation
Not determined.

Mobility
Not determined.

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>Proprietary</td>
<td>Toxic Corrosive</td>
</tr>
</tbody>
</table>
14. TRANSPORT INFORMATION

DOT  Not regulated.
IATA Not regulated.
IMDG  Not regulated.

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>ENCS</th>
<th>IECSC</th>
<th>KECL</th>
<th>PICCS</th>
<th>AICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary</td>
<td>Present</td>
<td>X</td>
<td>Present</td>
<td>Present</td>
<td>X</td>
<td>Present</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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
- **ENC S** - Japan Existing and New Chemical Substances
- **IECSC** - 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

CERCLA

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Hazardous Substances RQs</th>
<th>CERCLA/SARA RQ</th>
<th>Reportable Quantity (RQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary</td>
<td>1000 lb.</td>
<td></td>
<td>RQ 1000 lb. final RQ</td>
</tr>
</tbody>
</table>

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)

<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>Proprietary</td>
<td>1000 lb.</td>
<td></td>
<td></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></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>0</td>
<td>0</td>
<td>N+P</td>
</tr>
</tbody>
</table>

Issue Date: 18-Mar-2011
Revision Date: 10-Feb-2016
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 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