1. IDENTIFICATION

Product Identifier
Product Name United 339 CYCLE SMART

Other means of identification
SDS # UNITED-339

Recommended use of the chemical and restrictions on use
Recommended Use Stabilized Bromine 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 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Classification
Skin Corrosion Category 1A

Label elements
Signal word DANGER

Hazard statements
Causes severe skin burns and eye damages.

Appearance Light yellow liquid Physical State Liquid Odor Slight Chlorine Scent
Emergency Overview

Precautionary Statements
Do not breathe dust, mist, spray.
If swallowed: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/ shower.
IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
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 VENTER or doctor/physician.
Wash contaminated clothing before reuse.
Store locked up.
Wash all exposed body parts thoroughly after handling exposed body parts.
Wear eye protection, face protection, protective clothing, and protective gloves.
Specific treatment- See First Aid measures on this label First aid measures.
Do not mix with acids or ammonia – may generate dangerous chlorine gas.
Do not mix with other products.

Precautionary Statements - Disposal
Dispose of contents/container to proper treatment facilities in accordance with all applicable local, state, and federal regulations.

Precautionary Statements - Storage
Store according to local rules and regulations.

Hazards not otherwise classified (HNOC)
None known

Other Information
None known

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight%</th>
<th>GHS-US Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hypochlorite solution, conc active chlorine=12.5%</td>
<td>7681-52-9 50-60</td>
<td>Skin corr. 1A</td>
<td></td>
</tr>
<tr>
<td>Sodium hydroxide, conc=50%, aqueous solution</td>
<td>1310-73-2 2-5</td>
<td>Skin corr. 1A</td>
<td></td>
</tr>
</tbody>
</table>
4. FIRST-AID MEASURES

First Aid Measures

General Advice

Eye Contact
Rinse immediately with plenty of water for 15 minutes. Do not apply neutralizing agents. Take victim to an ophthalmologist.

Skin Contact
Wash immediately with lots of water (15 minutes)/shower. Remove clothing while washing. Do not remove clothing if it sticks to the skin. Cover wounds with sterile bandage. Consult a doctor/medical service. If burned surface > 10%: take victim to hospital.

Inhalation
Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

Ingestion

Most important symptoms and effects

Symptoms/injuries
Causes severe skin burns and eye damage.

Symptoms/ injuries after eye contact
Corrosion of the eye tissue. Permanent eye damage.

Symptoms/injuries after skin contact
Caustic burns/corrosion of the skin.

Symptoms/injuries after inhalation

Symptoms/injuries after ingestion

Chronic Symptoms
ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Fall of hair. Skin rash/inflammation. Gastrointestinal complaints.

Indication of any immediate medical attention and special treatment needed

Notes to Physician
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Adapt extinguishing media to the environment.

Unsuitable Extinguishing Media
No unsuitable extinguishing media known.
Specific Hazards Arising from the Chemical
DIRECT FIRE HAZARD. Noncombustible. INDIRECT FIRE HAZARD. Reactions involving a fire hazard: see "Reactivity Hazard".

Hazardous Combustion Products
INDIRECT EXPLOSION HAZARD. Reactions with explosion hazards: see “Reactivity Hazards”.

Reactivity
On burning: release of toxic and corrosive gases/vapors (chlorine, hydrogen chloride). Decomposes slowly on exposure to air: oxidation which increases fire hazard and release of toxic and corrosive gases/vapors (chlorine). This reaction is accelerated on exposure to light, on exposure to temperature rise and on exposure to (some) metals. Reacts violently with (some) acids/bases: release of toxic and corrosive gases/vapors (chlorine).

Protective equipment and precautions for firefighters
Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat. Dilute toxic gases with water spray. Take account of toxic fire-fighting water. Use water moderately and if possible collect or contain it.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions

Emergency Precautions

Environmental Precautions
Prevent soil and water pollution. Prevent spreading in sewers.

Methods and material for containment and cleaning up

Methods for Clean-Up
Liquid spill: neutralize. Take up liquid spill into a noncombustible material e.g.: sand, earth, vermiculite. Scoop absorbed substance into closing containers. See "Material-handling" for suitable container materials. Spill must not return in its original container. Damaged/cooled tanks must be emptied. Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

Method of containment
Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Dam up the liquid spill. If reacting: dilute toxic gas/vapor with water spray. Take account of toxic/corrosive precipitation water. Heat exposure: dilute toxic gas/vapor with water spray.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling
Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Keep the substance free from contamination. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Keep away from naked flames/heat. Observe strict hygiene. Keep container tightly closed. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

Hygiene measures
Wash all exposed body parts thoroughly after handling all exposed body parts.
Conditions for safe storage, including any incompatibilities

Technical Measures
Comply with applicable regulations.

Storage Conditions
Keep only in original container in a cool, well-ventilated place away from: keep container closed when not in use.

Incompatible Products
Strong bases. Strong acids.

Incompatible Materials
Sources of ignition. Direct sunlight.

Heat and Ignition Sources
KEEP SUBSTANCE AWAY FROM: heat sources.

Prohibitions on Mixed Storage

Storage Area
Store in a cool area. Keep out of direct sunlight. Store in a dry area. Store in a dark area. Keep locked up. Provide for a tub to collect spills. Keep only in the original container. Meet all legal requirements.

Special Rules on Packaging

Packaging Materials

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>
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</thead>
<tbody>
<tr>
<td>Sodium hydroxide, conc=50%, aqueous solution</td>
<td>2mg/m³ ceiling</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Individual protection measures, such as personal protective equipment

Personal Protective equipment
Avoid all unnecessary exposure.

Material for Protective clothing
GIVE EXCELLENT RESISTANCE: No data available. GIVE GOOD RESISTANCE: Neoprene. PVC. GIVE LESS RESISTANCE: no data available. GIVE POOR RESISTANCE: No data available.

Hand Protection
Gloves

Eye/Face Protection
Face shield.

Skin and Body Protection
Corrosive-proof clothing.

Respiratory Protection

General Hygiene Considerations
When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State
Liquid

Appearance
Light yellow liquid

Odor
Slight Chlorine Scent
Color: Light yellow
Odor Threshold: Not determined

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>12.5-13.7</td>
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</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>Not determined /&lt;0ºC(32ºF)</td>
<td>Literary Reference</td>
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<tr>
<td>Boiling Point/Boiling Range</td>
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<tr>
<td>Flash Point</td>
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<tr>
<td>Evaporation Rate</td>
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<td></td>
</tr>
<tr>
<td>Flammability (Solid, Gas)</td>
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<tr>
<td>Upper Flammability Limits</td>
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<tr>
<td>Lower Flammability Limit</td>
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<tr>
<td>Vapor Pressure</td>
<td>17.5 mm Hg</td>
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<td>Vapor Density</td>
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<tr>
<td>Specific Gravity</td>
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<td>Water Solubility</td>
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<tr>
<td>Density</td>
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<td>(1=Water)</td>
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<td>Solubility in other solvents</td>
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<tr>
<td>Partition Coefficient</td>
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<tr>
<td>Auto ignition Temperature</td>
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<tr>
<td>Decomposition Temperature</td>
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<tr>
<td>Kinematic Viscosity</td>
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<tr>
<td>Property</td>
<td>Values</td>
<td>Remarks • Method</td>
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<tr>
<td>Dynamic Viscosity</td>
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<td>Explosive Properties</td>
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<td>Oxidizing Properties</td>
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<tr>
<td>VOC Content</td>
<td>None</td>
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</table>

10. Stability and Reactivity

Reactivity
On burning: release of toxic and corrosive gases/vapors (chlorine, hydrogen chloride). Decomposes slowly on exposure to air: oxidation which increases fire hazard and release of toxic and corrosive gases/vapors (chlorine). This reaction is accelerated on exposure to light, on exposure to temperature rise and on exposure to (some) metals. Reacts violently with (some) acids/bases: release of toxic and corrosive gases/vapors (chlorine).
Chemical Stability
Unstable on exposure to light.

Possibility of Hazardous Reactions
Not established.

Conditions to Avoid
Direct sunlight. Extremely high or low temperatures.

Incompatible Materials
String acids. Strong bases. Do not mix with acids or ammonia – may generate dangerous chlorine gas. May be corrosive to metal.

Hazardous Decomposition Products

11. TOXICOLOGICAL INFORMATION

Product Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD50 Oral rat</th>
<th>LD50 Dermal rabbit</th>
<th>LC50 Inhalation</th>
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<tbody>
<tr>
<td>Sodium hypochlorite, solution, conc. Active chlorine=12.5% 7681-52-9</td>
<td>&gt;5000mg/kg</td>
<td>&gt;10000mg/kg</td>
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</tr>
</tbody>
</table>

Information on likely routes of exposure

Product Information

Eye Contact Not classified
Skin Contact Causes severe skin burns and eye damage.
Inhalation Not classified
Ingestion Not classified

Symptoms/injuries Causes severe skin burns and eye damage.
Symptoms/ injuries after eye contact Corrosion of the eye tissue. Permanent eye damage.
Symptoms/injuries after skin contact Caustic burns/corrosion of the skin.
Symptoms/injuries after ingestion the gastrointestinal tract. Shock. Disturbances of consciousness. FOLLOWING SYMPTOMS MAY APPEAR LATER: Tumors of the gastrointestinal tract.
Symptoms/injuries after ingestion
Chronic Symptoms
Delayed and immediate effects as well as chronic effects from short and long-term exposure
Carcinogenicity Not classified
Respiratory or skin sensitization Not classified
Germ Cell Mutation Not classified

Numerical measures of toxicity
Acute Toxicity Not classified
Reproductive Toxicity Not classified
Specific Target Organ Toxicity (repeated exposure) Not classified
Aspiration Hazard Not classified

12. ECOLOGICAL INFORMATION

Ecotoxicity
Toxic to aquatic life with long lasting effects. Avoid releasing to the environment.

Persistence/Degradability
Low potential for absorption into soil.

Bioaccumulation
Not determined

Mobility
May be harmful to plant growth, blooming and fruit formation.

Other Adverse Effects
Avoid release into the environment.

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods
Disposal of Wastes
Remove waste in accordance with local, state and/or national regulations. Remove for physicochemical/ biological treatment. Do not discharge into surface water. Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to proper treatment facilities in accordance with all applicable local, state & federal regulations.

14. TRANSPORT INFORMATION

DOT
Proper Shipping Name Hypochlorite solution
UN Number UN1791
Packaging Group II
Hazard Class 8
IATA Not determined
IMDG Not determined

15. REGULATORY INFORMATION

US Federal Regulations
**TSCA**
Not determined

**SARA 302**
Not determined

**SARA 311/312**
Not determined

**SARA 313**
Not determined

### 16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Special Hazards</th>
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<tbody>
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<td>3</td>
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<td>1</td>
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</table>

<table>
<thead>
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<th>HMIS</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Physical Hazards</th>
<th>Personal Protection</th>
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<tbody>
<tr>
<td>3</td>
<td></td>
<td>0</td>
<td>1</td>
<td>n &amp; D</td>
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</tbody>
</table>

**Issue Date**: 09-Apr-2010  
**Revision Date**: 22-Jun-2015  
**Revision Note**: New format

**Disclaimer**
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End of Safety Data Sheet