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Version 2

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

Chemical Name	CAS-No	Weight%	GHS-US Classification
Sodium hypochlorite solution, conc active chlorine=12.5%	7681-52-9	50-60	Skin corr. 1A
Sodium hydroxide, conc=50%, aqueous solution	1310-73-2	2-5	Skin corr. 1A

4. FIRST-AID MEASURES

First Aid Measures

General Advice	Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with labored breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.
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	Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Do not give activated charcoal. Do not give chemical antidote. Immediately consult a doctor/medical service. Call Poison Information Centre (www.big.be/antigif.htm). Ingestion of large quantities: immediately to hospital. Take the container/vomit to the doctor/hospital.

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	Dry/sore throat. Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. EXPOSURE TO HIGH CONCENTRATIONS: Possible laryngeal spasm/edema. Risk of lung edema. Respiratory difficulties.
Symptoms/injuries after ingestion	the gastrointestinal tract. Shock. Disturbances of consciousness. FOLLOWING SYMPTOMS MAY APPEAR LATER: Tumors of the gastrointestinal tract.
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.
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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	Gloves. Face-shield. Corrosion-proof suit. Large spills/in enclosed spaces: compressed air apparatus. Large spills/in enclosed spaces: gas-tight suit. Reactivity hazard: compressed air/oxygen apparatus. Reactivity hazard: gas-tight suit.
Emergency Precautions	Keep upwind. Mark the danger area. Seal off low-lying areas. Close doors and windows of adjacent premises. No naked flames. Wash contaminated clothes. Large spills/in confined spaces: consider evacuation. In case of reactivity hazard: consider evacuation.
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	KEEP SUBSTANCES AWAY FROM; reducing agents. (strong) acids. (strong) bases. Metals. Organic materials.
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	SPECIAL REQUIREMENTS: closing. Clean. Opaque. Correctly labeled. Meet the legal requirements. Secure fragile packaging in solid containers.
Packaging Materials	SUITABLE MATERIALS: synthetic material. Polyethylene. Glass. Stoneware/porcelain. MATERIAL TO AVOID: aluminum. Zinc.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium hydroxide, conc=50%, aqueous solution 1310-73-2	2mg/m ³ ceiling	-	-

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	Wear gas mask with filter type B if conc. In air > exposure limit. High vapor/gas concentration: self-contained respirator.
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	Odor	Slight Chlorine Scent
Appearance	Light yellow liquid		

Color	Light yellow	Odor Threshold	Not determined
Property	Values	Remarks • Method	
pH	12.5-13.7		
Melting Point/Freezing Point	Not determined /<0°C(32°F)	Literary Reference	
Boiling Point/Boiling Range	>100°C(210°F)		
Flash Point	Not determined		
Evaporation Rate	Not determined		
Flammability (Solid, Gas)	Not determined		
Upper Flammability Limits	Not determined		
Lower Flammability Limit	Not determined		
Vapor Pressure	17.5 mm Hg		
Vapor Density	Not determined		
Specific Gravity	1.20-1.30	(1=Water)	
Water Solubility	Soluble in water.		
Density	1.24g/ml		
Solubility in other solvents	Not determined		
Partition Coefficient	Not determined		
Auto ignition Temperature	Not determined		
Decomposition Temperature	Not determined		
Kinematic Viscosity	Not determined		
Property	Values	Remarks • Method	
Dynamic Viscosity	Not determined		
Explosive Properties	Not determined		
Oxidizing Properties	Not determined		
VOC Content	None		

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

Fume. Carbon monoxide. Carbon dioxide. Thermal decomposition generates: corrosive vapors.

11. TOXICOLOGICAL INFORMATION

Product Information

Chemical Name	LD50 Oral rat	LD50 Dermal rabbit	LC50 Inhalation
Sodium hypochlorite, solution, conc. Active chlorine=12.5% 7681-52-9	>5000mg/kg	>10000mg/kg	-

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 inhalation	Dry/sore throat. Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. EXPOSURE TO HIGH CONCENTRATIONS: Possible laryngeal spasm/edema. Risk of lung edema. Respiratory difficulties.
Symptoms/injuries after ingestion	the gastrointestinal tract. Shock. Disturbances of consciousness. FOLLOWING SYMPTOMS MAY APPEAR LATER: Tumors of the gastrointestinal tract.
Chronic Symptoms	ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Fall of hair. Skin rash/inflammation. Gastrointestinal complaints.

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

<u>NFPA</u>	Health Hazards 3	Flammability 0	Instability 1	Special Hazards -
<u>HMIS</u>	Health Hazards 3	Flammability 0	Physical Hazards 1	Personal Protection n & D

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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