



Safety Data Sheet

Issue Date 11-Apr-2010

Revision Date 5-Nov-2015

Version 2

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product Name United 336 CYCLE SMART™ BIOCIDE

Other means of identification

SDS# UNITED – 336

Recommended use of the chemical and restrictions on use

Recommended use Cycle Smart™ Biocide Industrial Water Treatment
Uses Advised Against For industrial and institutional use only.

Details of the supplier of the safety data sheet

Company Name

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 INFOTRAC 1-800-535-5053
1-352-323-3500 (International)

2. HAZARDS IDENTIFICATION

Classification

Pesticide: EPA SIGNAL WORD: DANGER. EPA Registration No. 83451-16-9250

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Acute Toxicity	Category 2
Skin Corrosion	Category 1B
Environment Hazard-Chronic	Category 2
Physical and Chemical Hazards	Not classified

Label elements

Emergency Overview

Danger

Hazard statement

Causes severe skin burns and eye damage. Fatal if swallowed. Toxic to aquatic life with long lasting effects.



Appearance Colorless Liquid

Physical state Liquid

Odor Slight Odor

Precautionary Statements

Prevention

Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Wash thoroughly after handling.
 Wear eye protection, protective clothing and protective gloves.

Response

If swallowed: Rinse mouth thoroughly. Do not induce vomiting. Get medical attention.
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower and soap for several minutes.
 If inhaled: Remove person to fresh air and keep comfortable for breathing. For breathing difficulties oxygen may be necessary.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 If exposed or concerned: Get medical advice/attention. Immediately call a doctor, a poison center. Wash contaminated clothing before reuse.

Storage

Store locked up.

Disposal

Dispose of contents/container to comply with local/regional/national/international regulations.

Hazards not otherwise classified (HNOC) None.

Other Information None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%	Trade Secret
Tributyltetradecyl Phosphonium Chloride	81741-28-8	5-10	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

General information

If you feel unwell, seek medical advice (show the label where possible).

Skin Contact

Remove victim immediately from source of exposure. Immediately remove contaminated clothing. Wash skin thoroughly with soap and water for several minutes. Get medical attention if any discomfort continues.

Eye contact

Remove victim immediately from source of exposure. Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention promptly if symptoms occur after washing.

Inhalation	Remove victim immediately of exposure. Provide rest, warmth and fresh air. For breathing difficulties oxygen may be necessary. Get medical attention if any discomfort continues.
Ingestion	NEVER make an unconscious person vomit or drink fluids. Do not induce vomiting. If vomiting occurs, the head should be kept low so the stomach vomit doesn't enter the lungs. Rinse mouth thoroughly. Get medical attention if any discomfort continues.

Most important symptoms and effects, both acute and delayed

Inhalation	Severe irritation in nose and throat. Congestion of the lungs may occur producing severe shortness of breath.
Skin contact	Chemical burns.
Eye contact	May cause blurred vision and serious eye damage.
Ingestion	May cause chemical burns in mouth and throat. May cause stomach pain or vomiting.

Indication of any immediate medical attention and special treatment needed

Note to physicians	Probable mucosal damage may contraindicate the use of gastric lavage.
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5. FIRE-FIGHTING MEASURES**Suitable extinguishing media**

This product is not flammable. CO2. Foam. Dry chemicals. Sand. Dolomite. Water spray. Fog or mist.

Specific hazards arising from the chemical

Fire creates: Toxic gases/vapors/fume of: Carbon monoxide (CO). Carbon dioxide (CO2). Oxides of: Phosphorus. Chlorine.

Protective equipment / advice and precautions for firefighters

Move container from fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. Keep run-off water out of sewers and water sources. Dike for water control. Leave danger zone immediately. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Follow precautions for safe handling described in this SDS. For personal protection, see Section 8.

Environmental precautions

Environmental precautions Avoid release to the environment. To prevent release, place container with damaged side up.

Methods and material for containment and cleaning up

Methods for containment and cleaning up Should be prevented from entering in drains. Absorb in vermiculite, dry sand or earth and place into containers. Collect and reclaim or dispose in sealed containers in licensed waste. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

Waste disposal Dispose of container in accordance with local, state and federal laws.

7. HANDLING AND STORAGE**Precautions for safe handling**

Advice on safe handling Comply with the legal requirements. Avoid spilling, skin and eye contact. Avoid inhalation of vapors and spray mists. Observe good chemical hygiene practices.

Hygiene measures Wash thoroughly after handling. Wash contaminated clothing before reuse. Avoid contact with skin, eyes or clothing.

Conditions for safe storage, including any incompatibilities

Storage Conditions Store in tightly closed original container in a dry, cool and well-ventilated place. Protect from freezing and direct sunlight. Keep separate from food, feedstuffs, fertilizers and other sensitive material. Store separated from: Alkalis. Reducing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines No exposure guidelines noted for ingredient(s).

Engineering Controls Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors. Provide adequate ventilation.

Individual protection measures, such as personal protective equipment

Eye/Face Protection	Wear protective eye wear (goggles or face mask). Use face shield in case of splash risk.
Skin/Body Protection	When handling the product to prevent skin contact by splashing, wear rubber apron. Wash promptly if skin becomes contaminated. Promptly remove clothing that becomes contaminated. Use protective gloves made of: selection of suitable gloves depends on work conditions and whether the product is present on its own or in combination with other substances. Neoprene, nitrile, polyethylene or PVC. Frequent change of gloves, as liquid may penetrate the gloves.
Respiratory Protection	In case of inadequate ventilation use suitable respirator. If exposure to spray, mist or vapors, if possible wear respirator face mask with appropriate cartridge. A respiratory protection program that meets OSHA 1910.134 and ANZI Z88.2 requirements must be followed whenever work place conditions warrant a respirator's use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Liquid
Color	Colorless
Odor	Slight odor

Property	Values
pH	6-8
Specific Gravity	1.01 – 1.06 (H2)1)
Viscosity	No Information available
Melting point/freezing point	No Information available
Flash point	No information available.
Boiling point / boiling range	100 @ 760 mm Hg
Evaporation rate	No Information available
Flammability (solid, gas)	No information available
Flammability Limits in Air	No information available
Upper flammability limit:	No Information available
Lower flammability limit:	No Information available
Vapor pressure	No Information available
Relative density	0.96-1.00 20°C
Vapor density	No information available

Water solubility	No information available.
Partition coefficient	No Information available
Autoignition temperature	No Information available
Decomposition temperature	>300
VOC Content (%)	None.

10. STABILITY AND REACTIVITY

Reactivity

No specific reactivity hazards associated with this product.

Chemical stability

Stable under recommended storage conditions and recommended use.

Possibility of Hazardous Reactions

Will not polymerise.

Conditions to avoid

Avoid excessive heat for prolonged periods of time.

Incompatible materials

Strong alkalis. Strong reduction agents

Hazardous Decomposition Products

Fire creates: Toxic gases/vapors/fumes of: Carbon monoxide (CO). Carbon dioxide (CO₂). Oxides of: Phosphorus.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Tributyltetradecyl Phosphonium Chloride 81741-28-8	>4000 mg/kg (Rat)	>2000 mg/kg (Rabbit)	0.9 mg/l (vapors) 4 hr. (Rat)

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Causes skin burns.
Serious eye damage/irritation	Causes eye burns.
Respiratory or skin sensitization	Not a skin sensitizer.
Germ cell mutagenicity	In Vitro – Ames test, negative.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

This product contains a substance which is toxic to aquatic organisms and which may cause long term adverse effect in the aquatic environment.

Persistence and degradability

This product is biodegradable, but it must not be discharged into drains without permission from the authorities.

Bioaccumulation

This product does not contain any substances expected to be bio-accumulating.

Partition coefficient

No information available.

Mobility

This product is miscible with water. May spread in water systems.

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes When handling waste, consideration should be made to the safety precautions applying to handling of this product. Triple rinse drums prior to recycling or disposal.

Waste treatment methods Absorb in vermiculite or dry sand and dispose of at a licensed hazardous waste collection point. Liquid material should be incinerated. Material absorbed onto sand or earth should be disposed of as solid waste in accordance with local regulations. Empty packaging may contain product residues and due consideration should be given prior to disposal.

14. TRANSPORT INFORMATION

DOT

UN/ID No.	UN2922
Proper Shipping Name	Corrosive Liquid, Toxic, N.O.S. (contains tributyltetradecylphosphonium chloride).
Transport hazard class(es)	8 (6.1)
Packaging group	II

IATA

UN/ID No.	UN2922
Proper Shipping Name	Corrosive Liquid, Toxic, N.O.S. (contains tributyltetradecylphosphonium chloride).
Transport hazard class(es)	8 (6.1)
Packaging group	III

IMDG

UN/ID No.	UN2922
Proper Shipping Name	
Transport hazard class(es)	8
Subsidiary Risk	6.1
Packaging group	III

Environmental Class Yes

Marine Pollutant

EMS F-A, S-B

Classification code (Adr) CT1

15. REGULATORY INFORMATION

International Inventories

Australia, Korea, China, Philippines – Tributyltetradecyl Phosphonium Chloride listed.

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory-None listed

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List-Tributyltetradecyl Phosphonium Chloride

US Federal Regulations

SARA 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

No ingredients listed.

SARA 313 Emission Reporting

This product does not contain toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372. EPA Registration Number 279-3139.

CERCLA Hazardous Substance List

None of the ingredients are listed.

CAA (Clean Air Act) Section 112(r) Accidental Release Prevention

None of the ingredients are listed.

FDA Essential Chemical

None of the ingredients listed.

FDA Precursor Chemical

None of the ingredient listed.

US State Regulations

California Proposition 65

This product does not contain chemicals considered by the State of California’s Safe Drinking Water and Toxic Enforcement Act of 1986 as causing cancer or reproductive toxicity and for which warnings are now required.

16. OTHER INFORMATION

Training advice: Normal use of this product shall imply use in accordance with the instructions on the packaging.

<u>NFPA</u>	Health hazards 3	Flammability 0	Reactivity 0	Physical and Chemical Properties Yes
<u>HMIS</u>	Health hazards 3	Flammability 0	Reactivity 0	Personal protection D

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No Information available

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