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Version 2

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name United 332 Earth Smart® Cooling Tower Treatment

Other means of identification

SDS # UNITED-332

Recommended use of the chemical and restrictions on use

Recommended Use Earth Smart® 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 Amber

Physical State Liquid

Odor Slight odor

Signal Word

Warning

Hazard Statements

May be harmful if swallowed.
Causes mild skin irritation.
Causes eye irritation.



Precautionary Statements - Prevention

Keep out of reach of children.
Keep container tightly closed.
Do not get in eyes, on skin or on clothing.
Wash hands thoroughly after handling.
Use personal protective equipment as required.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components	CAS Number	% by Wt.
Hydroxy Phosphonoacetic Acid	23783-26-8	0-5
Sodium Hydroxide	1310-73-2	1-5
Polymaleic Acid based Polymeric	26099-09-2	1-5
2-Phosphono-1,2,4-butanetricarboxylic Acid	37971-36-1	1-5
Non-Hazardous Ingredient	-	40-60

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	Flush eyes with a large amount of water for 15 minutes. Seek medical attention immediately if any irritation persists. After first aid, get appropriate in-plant, paramedic or community medical support.
Skin Contact	Wash affected areas thoroughly with soap and water for at least 15 minutes. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Seek medical attention if any irritation persists.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. If breathing difficult, give oxygen. Call a physician if any difficulties persist.
Ingestion	If person can swallow, give two glasses of water to drink. Do not induce vomiting! After first aid, seek appropriate in-plant, paramedic, or community medical support. Never give anything by mouth to an unconscious person.

5. FIRE-FIGHTING MEASURES

Flammability Classification

Non flammable

Suitable Extinguishing Media

Water fog, alcohol foam, carbon dioxide, dry chemical.

Unusual Fire or Explosion Hazards

None known other than material can splatter above 100°C/212°F.

Hazardous Combustion Products

Unknown but carbon monoxide may be released on burning.

Fire-Fighting Instructions

Do not release runoff from fire control methods to sewers or waterways.

Fire-Fighting Equipment

Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions	Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation.
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Environmental Precautions Follow applicable OSHA/CERCLA or any other regulations (29 CFR 1910.1200) as well as any state or local regulations that may apply.

Methods and material for containment and cleaning up

Small Spills Absorb spill with paper towel or similar absorbent; or flush to sewer or ground with large amounts of water.

Large Spills For large spills, dike far ahead of liquid spill for later disposal. Do not release into sewers or waterways. Absorb spill with vermiculite, oil dry or similar non-reactant absorbent. Solidified product represents no environmental hazard.

Clean-Up Accumulate the absorbed materials and dispose of according to federal, state and local regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Use the recommended safety controls and personal protective equipment as outlined. Fully review all data before handling of the material itself. Avoid contact with skin or eyes. Avoid breathing dust or mist. Keep from contact with clothing and other combustible materials. Observe good personal hygiene and housekeeping practices. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Conditions Do not store in direct sunlight. Store in a tightly closed container. Store in a cool dry, well ventilated area. Do not store this material near any strong acids, bases, oxidizers, flammables or any other type of reactive material. Do not expose the material to temperature extremes. Do not store product 77°F.

Regulatory Requirements Store materials according to all local, state and federal guidelines that are established for non-regulated chemical products.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Hazardous Components	CAS Number	OSHA PEL/TWA STEL	ACGIH TLV/TWA STEL
Hydroxy Phosphonoacetic	23783-26-8	2754 mg/kg (Rat)	Irritant
Sodium Hydroxide	1310-73-2	2 mg/m3	2 mg/m3
Polymaleic Acid based Polymeric	26099-09-2	None established	None established
2-Phosphono-1,2,4-butanetricarboxylic Acid	37971-36-1	None established	None established

Appropriate engineering controls

Engineering Controls/Ventilation Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it as its source.

Individual protection measures, such as personal protective equipment

Respiratory Protection	Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine operations (cleaning spills, reactor vessel, or storage tanks), wear an SCBA. <i>Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.</i> If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.
Personal Protective Equipment	Wear protective eyeglasses or chemical safety goggles, per OSHA eye-and-face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses. At a minimum wear safety glasses with side shields as well as chemically protective gloves and aprons to prevent prolonged or repeated skin exposure.
Safety Stations	Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.
Contaminated Equipment	Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment. Never eat, drink or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.
Work/Hygienic Practices	Consistent use of afore-mentioned personal protective equipment is essential in preventing injuries or irritation.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Light Amber Liquid
Color	Light Amber
Odor	Slight Odor

Property	Values	Remarks • Method
pH	<5	
Specific Gravity	1.14 +/-	
Water Solubility	Complete	
% Volatile	75% +/-	
Boiling Point	212°F +/-	
Vapor Pressure	Same as water	
Vapor Density	Same as water	
Evaporation Rate	1.00	
Melting Point	Not available	
Freeze Point	Approx. 32°F +/-	
Decomposition Temp	Not determined	
Flammability	Non-flammable	
Flash Point	Not available	
Auto Ignition Temp	Not available	
LEL	Not determined	
UEL	Not determined	
VOC Content	None	

10. STABILITY AND REACTIVITY

Stability

This product is stable at room temperatures in closed containers under normal storage and handling conditions. However, avoid temperature extremes.

Conditions to Avoid

Excessive temperature, contact with any type of reactive chemicals.

Hazardous Polymerization

Hazardous polymerization will not occur.

Chemical Incompatibilities

Avoid contact with strong acids, strong alkalis, oxidizers or any other type o reactive material.

Hazardous Decomposition Products

There are no known hazardous decomposition products for this material unless the material is burned In which case undetermined evolution of toxic gases may occur.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Routes of Entry	Absorbed through skin, dermal contact, eye contact, inhalation
Eye Effects	Irritation to eyes and possible burning if materials are not immediately rinsed from the eye.
Acute Inhalation Effects	Might produce irritation to respiratory system.
Skin Effects	Irritation to skin.
Acute Oral/Ingestion Effects	Not tested for this blend. Harmful if swallowed.
Chronic Effects on Humans	No specific studies have been conducted for this specific blend.
Other Toxic Effects on Humans	No specific studies have been conducted for this specific blend.
Special Remarks – Human Chronic Effects	No other information for chronic effects on humans.
Carcinogenicity	IARC, NTP, and OSHA do not list this product or its components as a carcinogen.
Mutagenicity	No mutagenic effects are known to be applicable for the formulation components of this product.
Teratogenicity	No specific studies have been conducted for this specific blend.
Target Organ Statement	No specific studies have been conducted for this specific blend.

Component Information

Hazardous Components	CAS No	LD50 of Ingredient (Specify Species & Route)	LD50 Dermal of Ingredient (Specify Species)
Hydroxy Phosphonoacetic Acid	23783-26-8	140 mg/l 48 hours (Daphnia Magna)	30 mg/l, 72 hours (Algae)
Sodium Hydroxide	1310-73-2	500 mg/kg (Oral) (Rabbit)	500 mg/ 24 hour (Rabbit)
Polymaleic Acid based Polymeric	26099-09-2	15000 mg/kg (Oral) (Rat)	>5010 mg/kg (Rabbit)
2-Phosphono-1,2,4-butanetricarboxylic acid	37971-36-1	>5000 mg/l (Rat)	No information available

12. ECOLOGICAL INFORMATION

The component(s) of this product are not subject to rapid biodegradation.

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

- Disposal of Wastes** Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable federal, state and local regulations.

- Container Cleaning and Disposal** Triple rinse the empty containers with water before disposal to be reconditioned or land fill or garbage.

14. TRANSPORT INFORMATION

Proper Shipping Name	Non Regulated Materials			
Hazard Class	Marine Pollutant:	UN Number:	Packing Group:	ERC Number:
Non Hazardous	No	NA	NA	NA

15. REGULATORY INFORMATION

2-Phosphono-1,2,4-butanetricarboxylic acid

Hazard Statements	May be harmful if swallowed.
	Causes mild skin irritation.
	Causes eye irritation.

Precautionary Statements	Keep container tightly closed. Keep only in original container.
	Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	Wear suitable protective clothing, gloves and eye/face protection.

EPA Regulations

RCRA Hazardous Waste Number	Product blend is not listed (40 CFR 261.33)
RCRA Hazardous Waste Classification (40 CFR 261)	Product blend is not classified.
CERCLA Hazardous Substance (40 CFR 302.4)	Product blend is unlisted specific per RCRA, Sec. 3001; CWA, Sec. 311 (b) (4); CWA, Sec. 307 (a),
CAA, Sec. 112 CERCLA Reportable Quantity (RQ)	Contains:
SARA 313 Codes: This product is subject to the reporting requirements of section 313 of the Emergency Planning and Community Right to Know Act of 1986 and 40CFR372.	Not listed
SARA Toxic Chemical (40CFR 372.65)	Not listed
Sara 302/304 Extremely Hazardous Substance (40CFR 355)	Not listed
Sara 313 SARA EHS (Extremely Hazardous Substance) (40 CFR 355)	Not listed
Threshold Planning Quantity (TPQ)	Not listed
OSHA Regulations	
Air Contaminant (20 CFR 1910.1000, Table Z-1, Z-1-A)	Not listed
OSHA Specifically Regulated Substance (29 CFR 1910.)	Not listed

State Regulations	As a product blend, the materials are generally not listed. Check with your local state regulatory board for more detailed information regarding the specific components of this product.
National Regulations	All components of this product are listed in the U.S. Environmental Protection Agencies, Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

16. OTHER INFORMATION

HMIS	Health Hazards	Flammability	Reactivity	Personal Protection
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Revision Note:	Revised

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