



# Safety Data Sheet

United Phosphorus, Inc.

Preparation Date 27-Apr-2015

Revision date 28-Apr-2015

Revision Number: 1

## 1. Identification of the Substance/Preparation and of the Company/Undertaking

### Product identifier

Product Description: Hydrothol® 191 Aquatic algicide and herbicide

### Other means of identification

Item#: 12-174  
UN-No 2902  
Synonyms Not Available  
Registration number(s) 70506-175

### Recommended use of the chemical and restrictions on use

Recommended use Aquatic herbicide. algicide.  
Uses advised against Activities contrary to label recommendation

### Details of the Supplier of the Safety Data Sheet

Supplier Address  
UPI  
630 Freedom Business Center  
Suite 402  
King of Prussia, PA 19406

### Emergency telephone number

Company Phone Number 1-800-438-6071  
Emergency telephone number Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887  
Medical: Rocky Mountain Poison Control Center  
(866) 673-6671 (24hrs)

## 2. Hazards Identification

### Classification

#### OSHA Regulatory Status

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

Acute toxicity - Oral	Category 3
Acute toxicity - Dermal	Category 3
Acute toxicity - Inhalation (Vapors)	Category 2
Skin Corrosion/Irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1

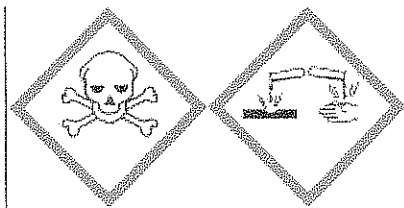
### Label elements

#### EMERGENCY OVERVIEW

DANGER

#### hazard statements

Toxic if swallowed  
Toxic in contact with skin  
Fatal if inhaled



appearance dark yellow light brown

Physical state liquid

Odor Slight chlorine

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
 Do not eat, drink or smoke when using this product  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Do not breathe dust/fume/gas/mist/vapors/spray  
 Use only outdoors or in a well-ventilated area  
 In case of inadequate ventilation wear respiratory protection

IF ON SKIN: Wash with plenty of soap and water  
 Call a POISON CENTER or doctor if you feel unwell  
 Remove/Take off immediately all contaminated clothing  
 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: Immediately call a POISON CENTER or doctor/physician  
 Rinse mouth

**Precautionary Statements - Storage**

Store locked up  
 Store in a well-ventilated place. Keep container tightly closed

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards Not Otherwise Classified (HNOC)****OTHER INFORMATION****3. Composition/information on Ingredients**

Chemical name	CAS-No	Weight %	Trade secret
Mono(N,N-diethylalkylamine)salt of endothall	66330-88-9	53	

If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

**4. First aid measures****FIRST AID MEASURES**

<b>Eye contact</b>	Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
<b>Skin contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Call poison control center or doctor for treatment advice.
<b>Inhalation</b>	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

**Ingestion** Call a physician or poison control center immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

**Protection of First-aiders** Use personal protective equipment.

**Most Important Symptoms and Effects, Both Acute and Delayed**

**Most Important Symptoms and Effects** No information available.

**Indication of Any Immediate Medical Attention and Special Treatment Needed**

**Notes to physician** No information available. Treat symptomatically.

## 5. Fire-fighting measures

**Suitable extinguishing media**

Carbon dioxide (CO<sub>2</sub>). Water. Foam.

**Unsuitable extinguishing media** No information available.

**Specific hazards arising from the chemical**

Thermal decomposition can lead to release of irritating gases and vapours.

**Hazardous combustion products** Extreme temperatures convert Endothall product to endothall anhydride which is a strong vesicant causing blistering of eyes, mucous membranes and skin.

**Explosion data**

**Protective equipment and precautions for firefighters**

Use personal protective equipment. 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** Avoid contact with the skin and the eyes. Use personal protective equipment. Wear protective gloves/clothing and eye/face protection.

**Environmental Precautions**

**Environmental precautions** Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

**Methods and material for containment and cleaning up**

**Methods for Clean-Up** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal.

## 7. Handling and Storage

**Precautions for safe handling**

**Handling** Keep out of reach of children. Empty containers may contain hazardous residues. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

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

**Storage** Keep in a dry place. Keep containers tightly closed in a cool, well-ventilated place. Keep from freezing.

incompatible materials Strong oxidizing agents.

**8. Exposure Controls/Personal Protection**

**Exposure guidelines** This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Engineering controls** Investigate engineering techniques to reduce exposures. Local mechanical exhaust ventilation is preferred. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

**Personal protective equipment**

**Eye/Face Protection** Use eye protection to avoid eye contact. Where there is potential for eye contact have eye flushing equipment available. Goggles.

**Skin protection** Wear protective gloves/clothing. Chemical resistant footwear plus socks.

**Respiratory protection** Where airborne exposure is likely, use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus. Respiratory protection programs must comply with 29 CFR 1910.134.

**General hygiene considerations**

Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Wear suitable gloves and eye/face protection. Wash hands before breaks and immediately after handling the product.

**9. Physical and Chemical Properties**

Information on basic physical and chemical properties

Physical state	liquid		
appearance	dark yellow light brown	Odor	Slight chlorine
color	No information available		

<u>Property</u>	<u>VALUES</u>	<u>Remarks/ • Method</u>
pH	No information available	
Melting point/freezing point	No information available	
Boiling Point/Range	100 °C / 212 °F	
Flash Point	> 100 C	
Evaporation Rate	No information available	
flammability (solid, gas)	No information available	
Flammability limit in air		
Upper Flammability Limit	No information available	
Lower Flammability Limit	No information available	
vapor pressure	9.45 X 10 <sup>-6</sup> Torr(Salt)	
Vapor Density	No information available	
Specific gravity	1.044 @25 C	
Water solubility	No information available	
Solubility in Other Solvents	No information available	
Partition coefficient: n-octanol/water	No information available	
Autoignition temperature	No information available	
decomposition temperature	No information available	
Viscosity, kinematic	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

OTHER INFORMATION

Softening point	No information available
molecular weight	No information available
VOC Content	No information available
density	No information available
Bulk density	No information available

## 10. Stability and Reactivity

### Reactivity

no data available

### Chemical stability

Stable under normal conditions.

### Possibility of hazardous reactions

None under normal processing.

**Hazardous polymerization**      Hazardous polymerisation does not occur.

### Conditions to avoid

Not known.

### incompatible materials

Strong oxidizing agents.

### Hazardous decomposition products

Carbon oxides.

## 11. Toxicological Information

### Information on Likely Routes of Exposure

#### Product information

Single exposure studies indicate:

Oral - Moderately toxic to rats (LD50 233.4 mg/kg)

Dermal - Moderately toxic to rabbits (LD50 480.9 mg/kg)

Inhalation - Slightly toxic to rats (4 hr LC 50 0.7 mg/l)

Skin irritation - Severely irritating to rabbits

Eye irritation - severely irritating to rabbits

No skin allergy was observed in guinea pigs following repeated exposure. Endothall  
Intentional swallowing of 40 ml led to death within 12 hours. Skin allergy was observed in  
guinea pigs following repeated exposure. Repeated dietary administration (Via gelatin  
capsules) produced vomiting, diarrhea, sluggish movements, and liver, kidney and blood  
effects in dogs. Long-term dietary administration to rats and mice produced effects in the  
glandular stomach. High mortality rates and intestinal tumors considered to be secondary  
to the effects in the stomach were observed in mice. Long-term application to the skin of  
mice produced no tumors. No birth defects were observed in the offspring of rats exposed  
orally during pregnancy, even at dosages that produced adverse effects on the mothers.  
Skeletal abnormalities were observed in the offspring of rabbits and mice exposed during  
pregnancy, but only at dosages that produced adverse effects in the mothers. No genetic  
changes were observed in tests using bacteria, animal cells or animals.

#### Inhalation

Harmful by inhalation.

#### Eye contact

Corrosive. May cause irreversible damage to eyes.

#### Skin contact

Causes severe skin burns.

#### Ingestion

MAY BE FATAL IF SWALLOWED.

### Information on Toxicological Effects

#### Symptoms

No information available.

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

sensitization	No information available.
Mutagenic effects	No information available.
Carcinogenicity	There are no known carcinogenic chemicals in this product.
Reproductive effects	Not Available.
STOT - Single Exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

#### Numerical Measures of Toxicity - Product information

LD50 Oral	233 mg/kg (rat)
LD50 Dermal	480.9 mg/kg (rat)
LC50 Inhalation:	0.7 mg/l (rat) (4-hr)

## 12. Ecological Information

### ecotoxicity

Endothall mono amine salt:  
 Acute contact toxicity Honey Bee  
 Practically non toxic  
 Acute Toxicity Avain  
 Northern Bobwhite Quail LD50  
 736 mg/kg  
 Acute Toxicity Freshwater Fish EC50  
 Bluegill sunfish 0.94 ppm  
 Rainbow trout 0.56 ppm  
 Cutthroat trout 0.18 ppm  
 Channel catfish 0.49 ppm  
 Acute Toxicity Freshwater Invertebrates EC50  
 Daphnia magna 0.36 ppm (48 hr)  
 Grasshrimp 0.05 ppm (96hr)  
 Scud 2.0 ppm (48hr)  
 Acute Toxicity Marine Invertebrates (flow thru) EC50 Mysid shrimp 2.2 ppm (96 hr)  
 Acute Toxicity Marine Fish (Flow thru) EC50  
 Sheepshead minnow 3.5 ppm (96 hr)

### Persistence/Degradability

No information available.

### Bioaccumulation/ Accumulation

Does not bioaccumulate.

### Other Adverse Effects

No information available

## 13. Disposal Considerations

### Waste Treatment Methods

#### Waste Disposal Method

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide or rinsate is a violation of Federal law. If the wastes cannot be disposed of by use or according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

#### Contaminated packaging

Refer to product label.



TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
 DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List  
 EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances  
 ENCS - 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

### Federal Regulations

#### 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 40n of the Code of Federal Regulations, Part 372.

#### SARA 311/312 Hazardous

##### Categorization

Acute health hazard	yes
Chronic health hazard	NO
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	yes

#### CERCLA

SARA Product RQ 0

#### RCRA

### Pesticide Information

#### State Regulations

#### State Right-to-Know

#### International regulations

#### U.S. EPA Label information

EPA Pesticide registration number 70506-175

## 16. Other Information

NFPA HEALTH 3 flammability 0 Instability 0 Physical hazard -

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#### Revision Summary

Update to GHS format

#### Disclaimer

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End of MSDS