



# 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****Eye contact**

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.

**Skin contact**

Wash off immediately with plenty of water for at least 15 minutes. Call poison control center or doctor for treatment advice.

**Inhalation**

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 (CO2). 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

<b>Exposure guidelines</b>	This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
<b>Engineering controls</b>	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.
<b>Personal protective equipment</b>	
<b>Eye/Face Protection</b>	Use eye protection to avoid eye contact. Where there is potential for eye contact have eye flushing equipment available. Goggles.
<b>Skin protection</b>	Wear protective gloves/clothing. Chemical resistant footwear plus socks.
<b>Respiratory protection</b>	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

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

### OTHER INFORMATION

<b>Softening point</b>	No information available
<b>molecular weight</b>	No information available
<b>VOC Content</b>	No information available
<b>density</b>	No information available
<b>Bulk density</b>	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. Skelatal 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

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

#### **Numerical Measures of Toxicity - Product information**

<b>LD50 Oral</b>	233 mg/kg (rat)
<b>LD50 Dermal</b>	480.9 mg/kg (rat)
<b>LC50 Inhalation:</b>	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 Toxcity 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.

## 14. Transport Information

**DOT**

<b>UN-No</b>	2902
<b>Proper shipping name</b>	Pesticides, liquid, toxic. n.o.s. (Endothal)
<b>Hazard class</b>	6.1
<b>Packing group</b>	PG III
<b>Reportable Quantity (RQ):</b>	1,000 lbs (endothall)

**ICAO**

<b>UN-No</b>	2902
<b>Proper shipping name</b>	Pesticide, liquid, toxic, n.o.s (Endothall)
<b>Hazard class</b>	6.1
<b>Packing group</b>	PG III

**IATA**

<b>UN-No</b>	2902
<b>Proper shipping name</b>	Pesticide, liquid, toxic, n.o.s (Endothall)
<b>Hazard class</b>	6.1
<b>Packing group</b>	PG III

**IMDG/IMO**

<b>UN-No</b>	2902
<b>Proper shipping name</b>	Pesticide, liquid, toxic, n.o.s (Endothall)
<b>Hazard class</b>	6.1
<b>Packing group</b>	PG III
<b>EmS No.</b>	F-A, S-A

## 15. Regulatory Information

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

**signal word** DANGER!

**Ventilation Control** PESTICIDE APPLICATORS & WORKERS THESE WORKERS MUST REFER TO PRODUCT LABELING AND DIRECTIONS FOR USE IN ACCORDANCE WITH EPA WORKER PROTECTION STANDARD 40 CFR PART 170.

**Keep out of Reach of Children. Causes irreversible eye damage. May be fatal if swallowed. Harmful if inhaled or absorbed through skin.**

**International Inventories**

<b>USINV</b>	Not determined
<b>DSL/NDSL</b>	Not determined
<b>EINECS/ ELINCS</b>	Does not comply
<b>ENCS</b>	Does not comply
<b>China</b>	Does not comply
<b>KECL</b>	Does not comply
<b>PICCS</b>	Does not comply
<b>AICS</b>	Does not comply
<b>TSCA</b>	Does not comply

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 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 -

Preparation Date 27-Apr-2015

Revision date 28-Apr-2015

#### Revision Summary

Update to GHS format

#### Disclaimer

UPI, Inc. believes that the information and recommendations container herein (including data and statements) are accurate as of the date hereof. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY, OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated and may not be valid where such product is used in combination with other materials or in any process. Further, since the conditions and methods of use are beyond the control of UPI, Inc. UPI, Inc. expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information.

**End of MSDS**