







# Material Safety Data Sheet

## United Phosphorus, Inc.

NFPA	PPE		
			

Issued Date 07-Feb-2007

Revision Date 19-Nov-2012

Revision Number: 7

### 1. PRODUCT AND COMPANY IDENTIFICATION

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

**Emergency Telephone Number**  
 Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887  
 Medical: Rocky Mountain Poison Control Center  
 (866) 673-6671 (24hrs)

<u>Company Information</u>	<u>Contact Information</u>	<u>Phone Number</u>	<u>Available Hrs</u>
UPI	Customer Service	1-800-438-6071	8:00 am to 5:00 pm EST

<b>Product Name</b>	AQUATHOL® K Aquatic Herbicide
<b>EPA Reg #</b>	70506-176
<b>Recommended Use</b>	Aquatic herbicide
<b>Product Code</b>	12-204

## 2. HAZARDS IDENTIFICATION

### Emergency Overview

Causes irreversible eye damage

May be fatal if swallowed

Harmful if inhaled

Harmful if absorbed through skin

Prolonged skin contact may cause local redness. May cause an allergic reaction in sensitive individuals.

### DANGER!

**Appearance** Yellow, Brown.

**Physical State** Liquid.

**Odor** Slight chlorine.

### Potential Health Effects

- Principle Routes of Exposure
- Inhalation
- Skin contact

#### Eyes

Causes irreversible eye damage.

#### Skin

May cause mild skin irritation. Repeated or prolonged exposure may cause severe skin irritation. Prolonged contact can result in redness and blistering of skin.

#### Inhalation

Slightly toxic if inhaled.

#### Ingestion

Harmful if swallowed.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Ingredients Name

Chemical Name	CAS-No	Weight %	OSHA PEL
Dipotassium endothall salt	2164-07-0	40.3	N/A

## 4. 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

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

### Inhalation

Move to fresh air. May cause allergic respiratory reaction. Call a poison control center or doctor for further treatment advice.

### Ingestion

Call a physician or poison control center immediately. May produce an allergic reaction. Do not induce vomiting unless told to do so by a poison control center or doctor. Never give anything by mouth to an unconscious person.

### Notes to Physician

No information available. Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

### Flammable Explosive Properties

<b>Flash Point</b>	Not available
<b>Autoignition Temperature</b>	Not available
<b>Flammability Limits in Air</b>	Not available
<b>Extnguishing Media</b>	Use: Water spray, Carbon dioxide (CO2), Dry chemical,
<b>Fire/Explosion Hazard</b>	No information available
<b>Hazardous Combustion Products</b>	Extreme temperatures convert Endothall product to endothall anhydride which is a strong vessicant causing blistering of eyes, mucous membranes and skin.

### NFPA

Health 3

Flammability 0

Instability 1

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Avoid contact with skin, eyes and clothing.
<b>Environmental Precautions</b>	Do not flush into surface water or sanitary sewer system. 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 pertinenet environmental permits.
<b>Methods for Clean-up</b>	Remove all ignition sources. Soak up with inert absorbent material. Ground and bond containers when transferring material. Keep in suitable and closed containers for disposal.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing. Keep out of reach of children. Empty containers may contain hazardous residues.
<b>Storage</b>	Store in an area where cross-contamination with pesticides, fertilizers, food or feed could not occur.

## 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. 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.
<b>Personal Protective Equipment</b>	
<b>Eye/face Protection</b>	Tightly fitting safety goggles. or. Face-shield.
<b>Skin Protection</b>	Chemical resistant gloves. Long sleeved clothing. Long pants. Chemical resistant footwear plus socks. Chemical resistant apron.
<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. Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Yellow Brown	<b>Odor</b>	Slight chlorine
<b>Physical State</b>	Liquid	<b>pH</b>	7.4
<b>Boiling Point/Range</b>	>100 °C	<b>Melting Point/Range</b>	Not available
<b>Specific Gravity</b>	1.285	<b>Solubility</b>	Miscible
<b>Evaporation Rate</b>	Not available	<b>Vapor pressure</b>	Not available
<b>Vapor Density</b>	Not available	<b>VOC Content</b>	Not available
<b>Viscosity</b>	Not available	<b>Molecular Weight</b>	no data available
<b>Bulk Density</b>	no data available	<b>Percent Solids</b>	Not available
<b>Percent Volatiles</b>	59.7		

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under normal conditions
<b>Conditions to Avoid</b>	No information available
<b>Incompatible Materials</b>	No materials to be especially mentioned
<b>Hazardous Decomposition Products</b>	Extreme temperatures may convert endothall product to endothall anhydride, a strong vesicant, causing blistering of eyes, mucous membranes and skin.

**Possibility of Hazardous Polymerization**

None under normal processing

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

#### **Component Information**

Although no allergic skin reactions were observed in guinea pigs following exposure to this material in water, allergic skin reactions were observed following exposure to this material in ethanol. Repeated application to the skin of rats produced severe skin irritation, liver, and kidney effects considered to be secondary to irritation, and increased mortality. Long-term dietary administration produced no adverse effects in rats. Dermal - Slightly toxic to Rabbits (LD50 2,000 mg/kg) Skin irritation - Non-irritating to rabbits  
Inhalation - Slightly toxic to rats (4 hr LC50 0.83 mg/l) aerosol Eye irritation - Cause irreversible eye damage in rabbits. Endothall- Intentional swallowing of 40 ml led to death within 12-hours. Skin allergy was observed in guinea pigs following repeated exposures. 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 anomalies were observed in the offspring of rabbits and mice exposed orally 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.

### Chronic Toxicity

#### **Carcinogenicity**

There are no known carcinogenic chemicals in this product.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Endothall dipotassium salt ecotoxicity

Acute Contact Toxicity Honey Bee (*Apis mellifera*)

For endothall acid, mono-amine salt, and dipotassium salt:

Practically non-toxic

Acute Toxicity Avian

Mallard duck(*Anas platyrhynchos*), LD50 = 328 mg/kg

Acute Toxicity Freshwater Fish

Bluegill sunfish(*Lepomis macrochirus*),flow-thru, EC50 = 1071 ppm

Rainbow trout(*Oncorhynchus mykiss*),flow-thru,EC50 =363 ppm

Chanel catfish(*Ictalurus punctatus*), static, EC50 = >100 ppm

Acute Toxicity Freshwater Invertebrates

Waterflea(*Daphnia magna*), flow-thru 48hr, EC50 = 223 ppm

Scud(*Gammarius lacustris*),static 48hr, EC50 = 313 ppm

Acute Toxicity Estuarine/Marine Fish

Sheepshead minnow(*Cyrinodon variegates*), flow-thru 96hr,

EC50 = 340 ppm

Coho salmon(*Oncorhynchus kisutch*)static, 96hr, EC50 = >100ppm

Acute Toxicity Estuarine/Marine Invertebrates

Mysid shrimp(*Mysidopsis bahia*), flow-thru 96hr, EC50 = 257 ppm

Eastern oyster(*Crassostrea virginica*)shell deposition,  
flow-thru 96hr, EC50 = 335 ppm.

## 13. DISPOSAL CONSIDERATIONS

### 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

Non refillable container. Do not reuse this container. Triple rinse or pressure rinse promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**14. TRANSPORT INFORMATION**

**DOT** When shipped as a limited quantity by domestic highway,, as per 49 CFR 173.153 the combination package, not exceeding a gross weight of 66 pounds (30 kg), may contain inner packagings not over 1.3 gallons (5 L ) each. Limited quantity designated packagings are excepted from labeling and packaging specification requirements.  
 If the limited quantity package is shipped by air the package must also conform to applicable requirements of 173.27.  
**Proper Shipping Name** Pesticides, liquid, toxic. n.o.s. (Endothal)  
**Hazard Class** 6.1  
**UN-No** 2902  
**Packing Group** PG III  
**Reportable Quantity (RQ):** 1,000 lbs

**ICAO**  
**UN-No** 2902  
**Proper Shipping Name** Pesticide, liquid, toxic, n.o.s. (Endothal)  
**Hazard Class** 6.1  
**Packing Group** PG III

**IATA**  
**UN-No** 2902  
**Proper Shipping Name** Pesticide, liquid, toxic, n.o.s. (Endothal)  
**Hazard Class** 6.1  
**Packing Group** PG III  
**ERG Code** 6L

**IMDG/IMO**  
**Proper Shipping Name** Pesticide, liquid, toxic, n.o.s. (Endothal)  
**Hazard Class** 6.1  
**UN-No** 2902  
**Packing Group** PG III  
**EmS No.** F-A, S-A

**15. REGULATORY INFORMATION**

**International Inventories**

Chemical Name	TSCA	DSL	NDSL	EINECS/ ELINCS	ENCS	CHINA	KECL	AICS
Dipotassium endothal salt	Present		X	X				

**USA**

**Federal Regulations**

**SARA 313**  
 Y

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values
Dipotassium endothal salt	2164-07-0	40.3	1.0

**SARA 311/312 Hazardous Categorization**  
**Chronic Health Hazard** No

Acute Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

**Clean Water Act**

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contain any HAPs.

**CERCLA**

**RCRA**

**Pesticide Information**

**State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**State Right-to-Know**

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Dipotassium endothall salt		X			

**International Regulations**

**Mexico - Grade** Not available

**Canada**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**WHMIS Hazard Class**

Not determined

**16. OTHER INFORMATION**

**Revision Date** 19-Nov-2012

**Revision Summary**

Update section 14



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**End of MSDS**