



United Phosphorus, Inc.

NFPA	PPE		

Issued Date 08-Feb-2007

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Revision Number: 9

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 R&D Technical Service	1-800-438-6071 610-878-6100	8:00 am to 5:00 pm EST 8:00 am - 5:00 pm (EST)

Product Name AQUATHOL® Super K
EPA Reg # 70506-191
Recommended Use Aquatic herbicide
Product Code 12-388

2. HAZARDS IDENTIFICATION

Emergency Overview May be fatal if swallowed Harmful if absorbed through skin Causes irreversible eye damage		
DANGER!		
Appearance Beige.	Physical State Granular.	Odor Odorless.

Potential Health Effects

- Inhalation
 - Skin contact
- | | |
|------------------|---------------------------------|
| Eyes | Severly irritating to the eyes. |
| Skin | May cause mild skin irritation. |
| Ingestion | May be harmful if swallowed. |

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients Name

Chemical Name	CAS-No	Weight %	OSHA PEL
Dipotassium endosulf salt	2164-07-0	63	N/A
2-propenamide polymer with potassium	31212-13-2	28	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 poison control center or doctor for treatment advice.
Inhalation	If breathing is irregular or stopped, administer artificial respiration 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

Flash Point	Not available
Autoignition Temperature	Not available
Flammability Limits in Air	Not available
Extinguishing Media	Use: Water spray, Carbon dioxide (CO ₂), Foam, Dry chemical.
Fire/Explosion Hazard	Firefighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear and self-contained breathing apparatus. Fire fighting equipment should be thoroughly decontaminated after use.
Hazardous Combustion Products	No information available.
NFPA	Health 3 Flammability 0 Instability 1

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Use personal protective equipment. Avoid contact with the skin and the eyes.
Environmental Precautions	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 pertinent environmental permits.
Methods for Clean-up	Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Handling	Avoid contact with skin, eyes and clothing. Avoid dust formation. Empty containers may contain hazardous residues. Keep out of reach of children.
Storage	Keep in properly labelled containers. Store in an area where cross-contamination with pesticides, fertilizers, food or feed could not occur.

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	Avoid contact with eyes. Goggles.
Skin Protection	Chemical resistant gloves. Long sleeved clothing. Long pants. Socks and footwear.
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. NIOSH approved half- or full-face respirator with a cartridge or canister approved for dusts and mists or a cartridge with any N, R, P, or He filter. Note: the quarter face cupstyle respirator does not meet this requirement.

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

Appearance	Beige	Odor	Odorless
Physical State	Granular	pH	6.9
Boiling Point/Range	Not available	Melting Point/Range	Not available
Specific Gravity	0.607 g/cm ³	Solubility	No data available
Evaporation Rate	Not available	Vapor pressure	Not available
Vapor Density	Not available	VOC Content	Not available
Viscosity	Not available	Molecular Weight	no data available
Bulk Density	no data available	Percent Solids	Not available
Percent Volatiles	Not available		

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions
Conditions to Avoid	No information available
Incompatible Materials	No materials to be especially mentioned
Hazardous Decomposition Products	Extreme temperatures may convert endothall product to endothall anhydride, a strong vesicant, causing blistering of eyes, mucous membranes and skin.
Possibility of Hazardous Polymerization	Hazardous polymerisation does not occur

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information	Single exposure studies indicate: Oral- Moderately toxic to Rats (LD50 98 mg/kg) Dermal - No more than slightly toxic to rabbits (LD50 > 2,000 mg/kg) Eye Irritation - Severely irritating to rabbits Skin Irritation - Slightly irritating to rabbits No skin allergy was observed in guinea pigs following repeated exposure.
Component Information	Endothal-potassium 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.
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. Chem Fate:. This material is rapidly degraded in aqueous systems by indigenous microbial population to CO₂ and other non-toxic natural products.

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. Clean container promptly after emptying. (if plastic pail) Triple rinse (or equivalent). 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 suthorities, by burning. If burned, stay out of smoke.

(if plastic bag) Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag 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(b) the combination package, not exceeding a gross weight of 66 pounds (30kg), may contain inner packages not over 11 lbs (5 kg) each. Limited quantity designated packagings are excepted from labeling and packaging specification requirements. If the Limited Quantity package is being shipped by air the package must conform to the applicable requirements of 173.27

Proper Shipping Name Pesticides, solid, toxic, n.o.s. (Endothall)
Hazard Class 6.1
UN-No 2588
Packing Group PG III
Reportable Quantity (RQ): 1,000 lbs (Endothall)

ICAO

UN-No 2588
Proper Shipping Name Pesticide, solid, toxic, n.o.s. (Endothall)
Hazard Class 6.1
Packing Group PG III

IATA

UN-No 2588
Proper Shipping Name Pesticide, solid, toxic, n.o.s. (Endothall)
Hazard Class 6.1
Packing Group PG III
ERG Code 6 L

IMDG/IMO

Proper Shipping Name Pesticide, solid, toxic, n.o.s. (Endothall)
Hazard Class 6.1
UN-No 2588
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 endothall salt	Present		X	X				
2-propenamide polymer with potassium	XU	X			(6)-883	X		X

USA

Federal Regulations

SARA 313

Y

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values
Dipotassium endothall salt	2164-07-0	63	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 endosulfate 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 09-Jan-2013

Revision Summary

Update section 14

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End of MSDS