



# Safety Data Sheet

United Phosphorus, Inc.

Preparation Date 16-Apr-2015

Revision date 16-Apr-2015

Revision Number: 1

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

### Product identifier

**Product Description:** AquaStrike

### Other means of identification

**Item#:** AQS  
**UN-No** 2902  
**Synonyms** Not Available  
**Registration number(s)** 70506-302

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

**Recommended use** Aquatic herbicide.  
**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 4
Acute toxicity - Inhalation (Vapors)	Category 2
Skin Corrosion/Irritation	Category 2
Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 1

### Label elements

#### EMERGENCY OVERVIEW

**DANGER**

#### **hazard statements**

Toxic if swallowed  
Harmful in contact with skin  
Fatal if inhaled  
CAUSES SKIN IRRITATION  
Causes serious eye irritation  
May cause an allergic skin reaction

May cause respiratory irritation  
Causes damage to organs through prolonged or repeated exposure



**appearance** yellow 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  
Contaminated work clothing should not be allowed out of the workplace

#### Precautionary Statements - Response

Get medical advice/attention if you feel unwell  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
If eye irritation persists: Get medical advice/attention  
IF ON SKIN: Wash with plenty of soap and water  
Call a POISON CENTER or doctor if you feel unwell  
Take off contaminated clothing and wash before reuse  
If skin irritation or rash occurs: Get medical advice/attention  
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  
Call a POISON CENTER or doctor if you feel unwell  
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

- Very toxic to aquatic life with long lasting effects
- Very toxic to aquatic life

### 3. Composition/information on Ingredients

Chemical name	CAS-No	Weight %	Trade secret
Dipotassium endothall salt	2164-07-0	28.64	
Diquat dibromide	85-00-7	10.6	

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

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<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>	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 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 physician or poison control center immediately.
<b>Ingestion</b>	Call a physician or poison control center immediately. Clean mouth with water. Never give anything by mouth to an unconscious person.

**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**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media** No information available.

**Specific hazards arising from the chemical**

No information available.

**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 skin, eyes and clothing.

**Environmental Precautions**

**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 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. Wear personal protective equipment. Remove and wash contaminated clothing before re-use. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product.

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

**Storage** Store in an area where cross-contamination with pesticides, fertilizers, food or feed could not occur. Keep in a dry, cool and well-ventilated place. Keep only in original container.

**incompatible materials** No information available.

## 8. Exposure Controls/Personal Protection

**Exposure guidelines**

Chemical name	ACGIH TLV	OSHA PEL
Diquat dibromide	TWA: 0.5 mg/m <sup>3</sup> inhalable fraction TWA: 0.1 mg/m <sup>3</sup> respirable fraction S*	(vacated) TWA: 0.5 mg/m <sup>3</sup>

**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. Safety glasses with side-shields. If splashes are likely to occur, wear: Goggles.

**Skin protection**

Chemical resistant gloves. waterproof gloves. Long sleeved clothing. Long pants. Socks and footwear.

**Respiratory protection**

Mixers & loaders:

A NIOSH approved dust mist filtering respirator with MSA/NIOSH approval number prefix TC-21C or a NIOSH approved respirator with any N, R, P, or HE filter.

**General hygiene considerations**

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

## 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>	yellow brown		
<b>color</b>	No information available		

<u>Property</u>	<u>VALUES</u>	<u>Remarks/ • Method</u>
<b>pH</b>	7.4	
<b>Melting point/freezing point</b>	No information available	
<b>Boiling Point/Range</b>	>100 °C	
<b>Flash Point</b>		
<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>	No information available	
<b>Vapor Density</b>	No information available	
<b>Specific gravity</b>	1.285	
<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 recommended storage conditions.

**Possibility of hazardous reactions**

None under normal processing.

**Conditions to avoid**

No information available.

**incompatible materials**

No information available.

**Hazardous decomposition products**

Extreme temperatures may convert endothall product to endothall anhydride, a strong vesicant, causing blistering of eyes, mucous membranes and skin.

**11. Toxicological Information****Information on Likely Routes of Exposure****Product information**

AquaStrike  
 Acute Oral LD50 = 93.28 mg/kg  
 Acute dermal LD50 = > 2,000 mg/kg  
 Acute Inhalation LC50 = >0.52 mg/L

**Inhalation** MAY BE FATAL IF INHALED.

**Eye contact** May cause irreversible damage to eyes.

**Skin contact** CAUSES SKIN IRRITATION.

**Ingestion** MAY BE FATAL IF SWALLOWED.

**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. Eye irritation - Cause irreversible eye damage in rabbits

**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** 92.28 mg/kg  
**LD50 Dermal** > 2000 mg/kg  
**LC50 Inhalation:** > 0.52 mg/l

## 12. Ecological Information

**ecotoxicity**

Endothall dipotassium salt:  
 Mallard duck LD50 = 328 mg/kg  
 Bluegill sunfish EC50= 1071 ppm  
 Rainbow trout EC50 = 363 ppm  
 Sheepshed minnow 96 hr EC50 = 340 ppm  
 Mysid shrimp 96 hr EC50 = 257 ppm  
 Eastern oyster 96 hr EC50 = 335 ppm

71.3% of the mixture consists of component(s) of unknown hazards to the aquatic environment

**Persistence/Degradability**

No information available.

**Bioaccumulation/ Accumulation**

No information available.

**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**

Non refillable container. Do not reuse this container. Refer to product label.

## 14. Transport Information

**DOT**

**UN-No** 2902  
**Proper shipping name** 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

**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.

**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>	Complies
<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/NDSL** - 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**

Y

Chemical name	SARA 313 - Threshold Values
Dipotassium endothall salt - 2164-07-0	1.0

**SARA 311/312 Hazardous**

**Categorization**

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

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Diquat dibromide 85-00-7				X

Chemical name	RQ	CERCLA EHS RQs	RQ
Diquat dibromide 85-00-7	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

**CERCLA**

Component	RQ
Diquat dibromide 85-00-7 ( 10.6 )	1000 lb

**RCRA**

**Pesticide Information**

Component	FIFRA - Restricted Use	FIFRA - Pesticide Product Other Ingredients	FIFRA - Listing of Pesticide Chemicals	California Pesticides - Restricted Materials
Diquat dibromide 85-00-7 ( 10.6 )			X	

**State Regulations**

**State Right-to-Know**

Chemical name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Dipotassium endothall salt		X			
Diquat dibromide	X	X	X		

**International regulations**

**U.S. EPA Label information**

EPA Pesticide registration number 70506-302

**16. Other Information**

**NFPA** HEALTH 3 flammability 0 Instability 1 Physical hazard -

Preparation Date 16-Apr-2015  
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 Revision Summary  
 Update to GHS format

**End of MSDS**