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

Product identifier
Product Description: AQUATHOL® Super K

Other means of identification
Item#: 12-388
UN-No: 2588
Synonyms: Not Available
Registration number(s): 70506-191

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
United Phosphorus Inc.
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)

<table>
<thead>
<tr>
<th>Acute toxicity - Oral</th>
<th>Category 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - Dermal</td>
<td>Category 4</td>
</tr>
</tbody>
</table>

Label elements

EMERGENCY OVERVIEW

DANGER

hazard statements
Toxic if swallowed
Harmful in contact with skin
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

IF ON SKIN: Wash with plenty of soap and water
Call a POISON CENTER or doctor if you feel unwell
Wash contaminated clothing before reuse
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Rinse mouth

Precautionary Statements - Storage
Store locked up

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

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>Trade secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dipotassium endothall salt</td>
<td>2164-07-0</td>
<td>63</td>
<td>Trade secret</td>
</tr>
<tr>
<td>2-propenamide polymer with potassium</td>
<td>31212-13-2</td>
<td>28</td>
<td></td>
</tr>
</tbody>
</table>

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
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. Clean mouth with water. Never give anything by mouth to an unconscious person.

Most Important Symptoms and Effects, Both Acute and Delayed
No information available.

Indication of Any Immediate Medical Attention and Special Treatment Needed
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** No information available.

**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**
Use personal protective equipment. Avoid contact with the skin and the eyes.

**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**
Sweep up and shovel into suitable containers for disposal.

### 7. Handling and Storage

**Precautions for safe handling**

**Handling**
Empty containers may contain hazardous residues. Keep out of reach of children. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product.

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

**Storage**
Keep in properly labelled containers. Store in an area where cross-contamination with pesticides, fertilizers, food or feed could not occur. Keep containers tightly closed in a cool, well-ventilated place.

**incompatible materials**
No materials to be especially mentioned.

### 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. If splashes are likely to occur, wear: Goggles.

**Skin protection**

**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

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>VALUES</th>
<th>Remarks/ Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>granular</td>
<td></td>
</tr>
<tr>
<td>appearance</td>
<td>Tan</td>
<td>Odor</td>
</tr>
<tr>
<td>color</td>
<td>No information available</td>
<td>odorless</td>
</tr>
<tr>
<td>pH</td>
<td>6.9</td>
<td></td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>7.9 °C / 46 °F</td>
<td></td>
</tr>
<tr>
<td>Boiling Point/Range</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability limit in air</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Upper Flammability Limit</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Lower Flammability Limit</td>
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<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Vapor Density</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Specific gravity</td>
<td>0.607 g/cm³</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Solubility in Other Solvents</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>decomposition temperature</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No information available</td>
<td></td>
</tr>
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</table>

OTHER INFORMATION

<table>
<thead>
<tr>
<th>Property</th>
<th>Remarks/ Method</th>
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<tbody>
<tr>
<td>Softening point</td>
<td>No information available</td>
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<tr>
<td>molecular weight</td>
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<tr>
<td>VOC Content</td>
<td>No information available</td>
</tr>
<tr>
<td>density</td>
<td>No information available</td>
</tr>
<tr>
<td>Bulk density</td>
<td>No information available</td>
</tr>
</tbody>
</table>

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 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.

### 11. Toxicological Information

**Information on Likely Routes of Exposure**

**Product information**

- Single exposure studies indicate:
  - Oral - Moderately toxic to Rats (LD$_{50}$ 98 mg/kg)
  - Dermal - No more than slightly toxic to rabbits (LD$_{50}$ > 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.

- Inhalation
  - May be harmful if inhaled.

- Eye contact
  - May cause irreversible damage to eyes.

- Skin contact
  - Slightly irritating.

- Ingestion
  - Toxic if swallowed.

**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.

**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**

<table>
<thead>
<tr>
<th>Toxicity</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD$_{50}$ Oral</td>
<td>98 mg/kg</td>
</tr>
<tr>
<td>LD$_{50}$ Dermal</td>
<td>&gt; 2000 mg/kg</td>
</tr>
</tbody>
</table>

### 12. Ecological Information

**ecotoxicity**

- Endothall dipotassium salt:
  - Mallard duck LD$_{50}$ = 328 mg/kg
  - Bluegill sunfish EC$_{50}$ = 1071 ppm
  - Rainbow trout EC$_{50}$ = 363 ppm
  - Sheepshed minnow 96 hr EC$_{50}$ = 340 ppm
  - Mysid shrimp 96 hr EC$_{50}$ = 257 ppm
  - Eastern oyster 96 hr EC$_{50}$ = 335 ppm
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
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

<table>
<thead>
<tr>
<th>UN-No</th>
<th>Proper shipping name</th>
<th>Hazard class</th>
<th>Packing group</th>
<th>Reportable Quantity (RQ):</th>
</tr>
</thead>
<tbody>
<tr>
<td>2588</td>
<td>Pesticides, solid, toxic, n.o.s. (Endothall)</td>
<td>6.1</td>
<td>PG III</td>
<td>1,000 lbs (Endothall)</td>
</tr>
</tbody>
</table>

TDG

ICAO

<table>
<thead>
<tr>
<th>UN-No</th>
<th>Proper shipping name</th>
<th>Hazard class</th>
<th>Packing group</th>
</tr>
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<tbody>
<tr>
<td>2588</td>
<td>Pesticide, solid, toxic, n.o.s (Endothall)</td>
<td>6.1</td>
<td>PG III</td>
</tr>
</tbody>
</table>

IATA

<table>
<thead>
<tr>
<th>UN-No</th>
<th>Proper shipping name</th>
<th>Hazard class</th>
<th>Packing group</th>
</tr>
</thead>
<tbody>
<tr>
<td>2588</td>
<td>Pesticide, solid, toxic, n.o.s (Endothall)</td>
<td>6.1</td>
<td>PG III</td>
</tr>
</tbody>
</table>

IMDG/IMO

<table>
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<tr>
<th>UN-No</th>
<th>Proper shipping name</th>
<th>Hazard class</th>
<th>Packing group</th>
<th>EmS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2588</td>
<td>Pesticide, solid, toxic, n.o.s (Endothall)</td>
<td>6.1</td>
<td>PG III</td>
<td>F-A, S-A</td>
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</table>
15. Regulatory Information

**International Inventories**

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Status</th>
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</thead>
<tbody>
<tr>
<td>USINV</td>
<td>Not determined</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Not determined</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Does not comply</td>
</tr>
<tr>
<td>ENCS</td>
<td>Does not comply</td>
</tr>
<tr>
<td>China</td>
<td>Does not comply</td>
</tr>
<tr>
<td>KECL</td>
<td>Does not comply</td>
</tr>
<tr>
<td>PICCS</td>
<td>Does not comply</td>
</tr>
<tr>
<td>AICS</td>
<td>Does not comply</td>
</tr>
<tr>
<td>TSCA</td>
<td>Complies</td>
</tr>
</tbody>
</table>

- **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**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and and Title 40n of the Code of Federal Regulations, Part 372:

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>SARA 313 - Threshold Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dipotassium endothall salt - 2164-07-0</td>
<td>1.0</td>
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</tbody>
</table>

**SARA 311/312 Hazardous**

**Categorization**

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute health hazard</td>
<td>Yes</td>
</tr>
<tr>
<td>Chronic health hazard</td>
<td>No</td>
</tr>
<tr>
<td>Fire hazard</td>
<td>No</td>
</tr>
<tr>
<td>Sudden release of pressure hazard</td>
<td>No</td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**CERCLA**

**SARA Product RQ**

<table>
<thead>
<tr>
<th>State Right-to-Know</th>
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<tr>
<td>Chemical name</td>
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<tr>
<td>Dipotassium endothall salt</td>
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</table>

**International regulations**

**U.S. EPA Label information**

**EPA Pesticide registration number**

70506-191
16. Other Information

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HEALTH</th>
<th>flammability</th>
<th>Instability</th>
<th>Physical hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation Date</td>
<td>17-Apr-2015</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revision date</td>
<td>17-Apr-2015</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revision Summary</td>
<td>Update to GHS format</td>
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</tbody>
</table>

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End of MSDS