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

Product identifier
Product Description: AQUATHOL® Super K

Other means of identification
Product code 12-388
UN/ID no. 2588
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
UPL NA 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>Hazard</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - Oral</td>
<td>Category 3</td>
</tr>
<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

Appearance Tan
Physical state granular
Odor odorless

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>
</tr>
</thead>
<tbody>
<tr>
<td>Dipotassium endothall salt</td>
<td>2164-07-0</td>
<td>63</td>
</tr>
<tr>
<td>2-propenamide polymer with potassium</td>
<td>31212-13-2</td>
<td>28</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 a 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

Most Important Symptoms and Effects no data 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 data 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 skin and 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></td>
</tr>
<tr>
<td>color</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>odorless</td>
<td></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>
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<td></td>
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<tr>
<td>Flash Point</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
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<td></td>
</tr>
<tr>
<td>Flammability limit in air</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper Flammability Limit</td>
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<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>
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<tr>
<td>Water solubility</td>
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<td></td>
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<tr>
<td>Solubility in Other Solvents</td>
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<td></td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
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</tr>
<tr>
<td>Autoignition temperature</td>
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<td></td>
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<tr>
<td>Decomposition temperature</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
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<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>
</tbody>
</table>

**OTHER INFORMATION**

<table>
<thead>
<tr>
<th>Property</th>
<th>VALUEs</th>
<th>Remarks/ Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Softening point</td>
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<td></td>
</tr>
<tr>
<td>molecular weight</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>VOC Content</td>
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<td></td>
</tr>
<tr>
<td>Liquid Density</td>
<td>No information available</td>
<td></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 (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.

**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 data available.

**Carcinogenicity**
There are no known carcinogenic chemicals in this product.

**Reproductive effects**
Not Available.

**STOT - Single Exposure**
No data available.

**STOT - Repeated Exposure**
No data available.

**Aspiration hazard**
No information available.

### Numerical Measures of Toxicity - Product information

<table>
<thead>
<tr>
<th>Toxicity Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 Oral</td>
<td>98 mg/kg (rat)</td>
</tr>
<tr>
<td>LD50 Dermal</td>
<td>&gt; 2000 mg/kg (rat)</td>
</tr>
</tbody>
</table>

## 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

**Persistence/Degradability**
no data available.

**Bioaccumulation/ Accumulation**
No information available.

**Other Adverse Effects**
no data 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

| UN/ID no. | 2588 |
| Proper shipping name | Pesticides, solid, toxic, n.o.s. (Endothall) |
| Hazard class | 6.1 |
| Packing group | PG III |
| Reportable Quantity (RQ): | 1,000 lbs (Endothall) |

**TDG**

**ICAO**

| UN/ID no. | 2588 |
| Proper shipping name | Pesticide, solid, toxic, n.o.s (Endothall) |
| Hazard class | 6.1 |
| Packing group | PG III |

**IATA**

| UN/ID no. | 2588 |
| Proper shipping name | Pesticide, solid, toxic, n.o.s (Endothall) |
| Hazard class | 6.1 |
| Packing group | PG III |

**IMDG**

| UN/ID no. | 2588 |
| Proper shipping name | Pesticide, solid, toxic, n.o.s (Endothall) |
| Hazard class | 6.1 |
| Packing group | PG III |
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

Keep out of Reach of Children. Corrosive. Causes irreversible eye damage. May be fatal if swallowed. Harmful if absorbed through the skin. Pesticide is toxic to mammals.

International Inventories

USINV       Present
DSL/NDSL     Present
EINECS/ELINCS Not Present

International Inventories

ENCS               Not Present
China              Not Present
KECL               Not Present
PICCS             Not Present
AICS              Not Present
TSCA               Present

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 Title 40 of the Code of Federal Regulations, Part 372:

CERCLA
Not applicable

CERCLA
SARA Product RQ 0

RCRA

Pesticide Information

State Regulations

State Right-to-Know
Not applicable

International regulations
U.S. EPA Label information
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></td>
<td></td>
<td>0</td>
<td>1</td>
<td>-</td>
</tr>
</tbody>
</table>

Preparation Date 17-Apr-2015
Revision date 31-Dec-2018
Revision Summary Update logo Update section 1 Update Section 16***

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End of SDS