



Safety Data Sheet

United Phosphorus, Inc.

Preparation Date 17-Apr-2015

Revision date 17-Apr-2015

Revision Number: 1

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

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 |

Label elements

EMERGENCY OVERVIEW

DANGER

hazard statements

Toxic if swallowed
Harmful in contact with skin



| | | |
|------------------|-------------------------|---------------|
| appearance beige | 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**

| Chemical name | CAS-No | Weight % | Trade secret |
|--------------------------------------|------------|----------|--------------|
| Dipotassium endothall salt | 2164-07-0 | 63 | |
| 2-propenamide polymer with potassium | 31212-13-2 | 28 | |

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

| | |
|--|---------------------------|
| 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 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

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

Information on basic physical and chemical properties

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

OTHER INFORMATION

| | |
|------------------|--------------------------|
| Softening point | No information available |
| molecular weight | No information available |
| VOC Content | No information available |
| density | No information available |
| Bulk density | 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 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 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 | 98 mg/kg (rat) |
| LD50 Dermal | > 2000 mg/kg (rat) |

12. Ecological Information

ecotoxicity

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

UN-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-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

IMDG/IMO**UN-No**

2588

Proper shipping name

Pesticide, solid, toxic, n.o.s (Endothall)

Hazard class

6.1

Packing group

PG III

EmS No.

F-A, S-A

15. Regulatory Information

International Inventories

| | |
|---------|-----------------|
| USINV | Not determined |
| DSL/NDL | Not determined |
| EINECS/ | Does not comply |
| ELINCS | |
| ENCS | Does not comply |
| China | Does not comply |
| KECL | Does not comply |
| PICCS | Does not comply |
| AICS | Does not comply |
| TSCA | Complies |

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - 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:

| 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 | yes |

CERCLA

SARA Product RQ 0

RCRA

Pesticide Information

State Regulations

State Right-to-Know

| Chemical name | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|----------------------------|---------------|------------|--------------|----------|--------------|
| Dipotassium endothall salt | | X | | | |

International regulations

U.S. EPA Label information

EPA Pesticide registration number 70506-191

16. Other Information**NFPA****HEALTH 3****flammability 0****Instability 1****Physical hazard -****Preparation Date**

17-Apr-2015

Revision date

17-Apr-2015

Revision Summary

Update to GHS format

End of MSDS