



AQUATHOL SUPER K

Material Safety Data Sheet

Cerexagri, Inc.

1 PRODUCT AND COMPANY IDENTIFICATION

Agrichemicals Group

Cerexagri, Inc.
630 Freedom Business Center, Suite 402
King of Prussia, PA 19406

EMERGENCY PHONE NUMBERS:

Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887
Medical: Rocky Mountain Poison Control Center
(303) 623-5716 (24Hrs)

| Information Telephone Numbers | Phone Number | Available Hrs |
|-------------------------------|----------------|----------------------|
| R&D Technical Service | 610-878-6100 | 8:00am to 5:00pm EST |
| Customer Service | 1-800-438-6071 | 8:00am - 5:00 pm EST |

Product Name AQUATHOL SUPER K
Product Synonym(s)

Chemical Family Dicarboxylic acid
Chemical Formula C₈H₈O₅K₂
Chemical Name Dipotassium endothall
EPA Reg Num 4581-388
Product Use Aquatic herbicide

2 COMPOSITION / INFORMATION ON INGREDIENTS

| Ingredient Name | CAS RegistryNumber | Typical Wt. % | OSHA |
|---------------------------------------|--------------------|---------------|------|
| Endothal-potassium | 2164-07-0 | 63.0 % | Y |
| 2-Propenamide, polymer with potassium | 31212-13-2 | 27.5% | Y |

The substance(s) marked with a "Y" in the OSHA column, are identified as hazardous chemicals according to the criteria of the OSHA Communication Standard (29 CFR 1910.1200)

3 HAZARDS IDENTIFICATION

Emergency Overview

Beige granular material, odorless.

KEEP OUT OF REACH OF CHILDREN.

DANGER!

Causes irreversible eye damage

MAY BE FATAL IF SWALLOWED.

HARMFUL IF ABSORBED THROUGH SKIN.

Do not get in eyes, on skin or on clothing.

Avoid breathing dust.

Potential Health Effects

Inhalation and skin contact are expected to be the primary routes of occupational exposure to this material. Based on single exposure animal tests, it is considered to be moderately toxic if swallowed, no more than slightly toxic if absorbed through skin, severely irritating to eyes and slightly irritating to skin.



AQUATHOL SUPER K

Material Safety Data Sheet

Cerexagri, Inc.

4 FIRST AID MEASURES

IF IN EYES, Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention.

IF ON SKIN, Wash with plenty of soap and water. Get medical attention if irritation persists.

IF SWALLOWED, Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. If person is unconscious, do not give anything by mouth and do not induce vomiting.

IF INHALED, Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention.

5 FIRE FIGHTING MEASURES

Fire and Explosive Properties

| | | |
|---------------------------|----|--------------------|
| Auto-Ignition Temperature | NE | |
| Flash Point | NE | Flash Point Method |
| Flammable Limits- Upper | NE | |
| Lower | NE | |

Extinguishing Media

Use water spray, carbon dioxide, foam or dry chemical.

Fire Fighting Instructions

Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand NIOSH approved or equivalent). Fire fighting equipment should be thoroughly decontaminated after use.

Fire and Explosion Hazards

None known.

6 ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak

Contain spill. Sweep or scoop up and remove to suitable container. Flush with water. Prevent spilled product from entering sewers or natural water. 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.

7 HANDLING AND STORAGE



AQUATHOL SUPER K

Material Safety Data Sheet

Cerexagri, Inc.

7 HANDLING AND STORAGE

Handling

Do not breathe dust. Avoid contact with eyes, skin and clothing.
Wash thoroughly after handling. Keep container closed.
Empty container may contain hazardous residues.
KEEP OUT OF REACH OF CHILDREN.

Storage

Do not store in a manner where cross-contamination with pesticides, fertilizers, food or feed could occur.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls

Investigate engineering techniques to reduce exposures. Provide ventilation if necessary to minimize exposure. Dilution ventilation is acceptable, but local mechanical exhaust ventilation preferred, if practical, at sources of air contamination such as open process equipment. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

Eye / Face Protection

Where there is potential for eye contact, wear chemical goggles and have eye flushing equipment immediately available.

Skin Protection

Minimize skin contamination by following good industrial hygiene practice. Wearing rubber gloves is recommended. Wash hands and contaminated skin thoroughly after handling.

Respiratory Protection

Where airborne exposure is likely, use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type equipment for a 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 or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

Airborne Exposure Guidelines for Ingredients

The components of this product have no established Airborne Exposure Guidelines

- Only those components with exposure limits are printed in this section.
- Skin contact limits designated with a "Y" above have skin contact effect. Air sampling alone is insufficient to accurately quantitate exposure. Measures to prevent significant cutaneous absorption may be required.
- ACGIH Sensitizer designator with a value of "Y" above means that exposure to this material may cause allergic reactions.
- WEEL-AIHA Sensitizer designator with a value of "Y" above means that exposure to this material may cause allergic skin reactions.



AQUATHOL SUPER K

Material Safety Data Sheet

Cerexagri, Inc.

9 PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---------------------|------------------------------------|
| Appearance/Odor | Beige granular material, odorless. |
| pH | 6.9 (1% aqueous soln) |
| Specific Gravity | 0.607 g/cm ³ |
| Vapor Pressure | Negligible |
| Vapor Density | N/A |
| Melting Point | N/A |
| Freezing Point | N/A |
| Boiling Point | N/A |
| Solubility In Water | >65 g/100ml |
| Evaporation Rate | N/A |
| Percent Volatile | N/A |

10 STABILITY AND REACTIVITY

Stability

This material is chemically stable under normal and anticipated storage and handling conditions.

Hazardous Polymerization

Does not occur.

Incompatibility

None known.

Hazardous Decomposition Products

Elevated temperatures convert endothal to anhydride, a strong vesicant, causing blisters of eyes, mucous membranes, and skin.

11 TOXICOLOGICAL INFORMATION

Toxicological Information

Data on this material and/or its components are summarized below.

Single exposure (acute) 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.

Endothal-potassium (technical active ingredient)

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.



AQUATHOL SUPER K

Material Safety Data Sheet

Cerexagri, Inc.

12 ECOLOGICAL INFORMATION

Ecotoxicological Information

Data on this material and/or its components are summarized below.

Endothal-potassium (technical active ingredient)

This material is practically non-toxic to bluegill sunfish (LC50 316-501.2 mg/l), rainbow trout (LC50 107-528.7 mg/l), eastern oysters (LC50 117 mg/l), largemouth bass (LC50 130 mg/l), fiddler crab (LC50 752.4 mg/l) and sheepshead minnow (LC50 340 mg/l), and slightly toxic to mysid shrimp (LC50 79 mg/l), walleye (LC50 16-54 mg/l) and smallmouth bass (LC50 47 mg/l). It is practically non-toxic to slightly toxic to *Daphnia magna* (EC50 72-319.5 mg/l) and no more than moderately toxic to freshwater blue-green algae (LC50 >4.8 mg/l), freshwater diatoms (LC50 >3.6 mg/l), freshwater green algae (LC50 >4.8 mg/l) and marine diatoms (LC50 >9.0 mg/l).

The 8-day LC50 for bobwhite quail and mallard ducklings is >5,000 ppm, the 21-day LD50 for mallard ducks is 344 mg/kg, the 14-day EC50 for duckweed is 0.84 mg/l and the 14-day LC50 for juvenile chinook salmon is 62.5 ppm.

7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid

Endothall is slightly toxic to bluegill sunfish (96-hr LC50 77 mg/l), rainbow trout (96-hr LC50 49 mg/l), *Daphnia magna* (48-hr LC50 92 mg/l), eastern oysters (96-hr LC50 54 mg/l), mysid shrimp (96-hr LC50 39 mg/l) and fiddler crab (96-hr LC50 85.1 mg/l). It is practically non-toxic to sheepshead minnow (96-hr LC50 110 mg/l) and common mummichog (96-hr LC50 213.9 mg/l).

Endothall has an 8-day LC50 of >5,000 ppm (bobwhite quail and mallard ducklings), a 21-day LD50 of 111 mg/kg (mallard ducks), a 30-day MATC of 19 mg/l (fathead minnows) and a 21-day MATC of 6.7 mg/l (*Daphnia magna*). No adverse effects were observed in mallard ducks and bobwhite quail following repeated (20-weeks) administration in the diet.

Chemical Fate Information

Data on this material and/or its components are summarized below.

Endothal-potassium (technical active ingredient)

This material is rapidly degraded in aqueous systems by the indigenous microbial population to CO₂ and other non-toxic natural products.

13 DISPOSAL CONSIDERATIONS

Waste Disposal

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use 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.



AQUATHOL SUPER K

Material Safety Data Sheet

Cerexagri, Inc.

14 TRANSPORT INFORMATION

DOT Name Pesticides, solid, toxic, n.o.s.
DOT Technical Name Endothall
DOT Hazard Class 6.1
UN Number 2588
DOT Packing Group PG III
RQ 1,000 POUNDS

15 REGULATORY INFORMATION

Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370)

| | | | |
|--------------------------|---|----------------------------|---|
| Immediate (Acute) Health | Y | Fire | N |
| Delayed (Chronic) Health | N | Reactive | N |
| | | Sudden Release of Pressure | N |

Ingredient Related Regulatory Information:

SARA Reportable Quantities

| | CERCLA RQ | SARA TPQ |
|---------------------------------------|-----------|----------|
| Endothal-potassium | NE | |
| 2-Propenamide, polymer with potassium | NE | |

SARA Title III, Section 313

This product does contain chemical(s) which are defined as toxic chemicals under and subject to the reporting requirements of, Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. See Section 2

Endothal-potassium

16 OTHER INFORMATION

Revision Information

Revision Date 15 MAY 2001 Revision Number 4
Supersedes Revision Dated 03-JAN-2001

Revision Summary

Cerexagri, Inc. has moved its headquarters to a new location. This revision includes the new address

Key

NE= Not Established NA= Not Applicable (R) = Registered Trademark



AQUATHOL SUPER K

Material Safety Data Sheet

Cerexagri, Inc.

Cerexagri, Inc. believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY, OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated and may not be valid where such product is used in combination with any other materials or in any process. Further, since the conditions and methods of use are beyond the control of Cerexagri, Inc., Cerexagri, Inc. expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information.

Cerexagri, Inc. is a wholly owned subsidiary of ATOFINA Chemicals, Inc.