



ACCELERATE

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 ACCELERATE
Product Synonym(s)

Chemical Family Dicarboxylic Acid- mixed mono and diamine salt
Chemical Formula C₂₂H₄₁NO₅
Chemical Name Endothall mixed mono and di (N, N-dimethylalkyl-amine) salts
EPA Reg Num 4581-284
Product Use Harvest aid for cotton

2 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS RegistryNumber	Typical Wt. %	OSHA
Mono(N,N-dimethylalkylamine) salt of endothall	66330-88-9	15.9	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

Yellowish brown clear liquid with faint chlorine odor
KEEP OUT OF REACH OF CHILDREN.

DANGER!

Causes irreversible eye damage
CAUSES SEVERE EYE AND SKIN IRRITATION.
MAY BE FATAL IF ABSORBED THROUGH SKIN.

HARMFUL IF SWALLOWED OR INHALED

Do not get in eyes, on skin or on clothing.
Avoid breathing mist.

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 slightly toxic if swallowed, moderately toxic if absorbed through skin, slightly toxic if inhaled and severely irritating to eyes and skin.



4 FIRST AID MEASURES

IF IN EYES, immediately flush with plenty of water for at least 15 minutes. Get medical attention immediately.

IF ON SKIN, immediately flush with plenty of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Destroy contaminated shoes.

IF SWALLOWED, Call a doctor or get medical attention. Do not induce vomiting or give anything by mouth to an unconscious person. Drink promptly a large quantity of milk, egg whites, gelatin solution, or if these are not available, drink large quantities of water. Avoid alcohol.

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	NA	
Flash Point	NA	Flash Point Method
Flammable Limits- Upper	NA	
Lower	NA	

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

Small spills: soak up with an inert absorbent. Scoop up and place in a clean, dry container. Consult with environmental engineer or professional to determine if neutralization is appropriate and for handling procedures for residual materials.

Large spills: Pump into marked containers for disposal or reclamation. 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



7 HANDLING AND STORAGE

Handling

Wash thoroughly after handling.
Do not get in eyes, on skin or on clothing.
Keep container closed.
Avoid breathing vapor or mist.
Empty container may contain hazardous residues.
Use only with adequate ventilation.

Storage

This material is not hazardous under normal storage conditions; however, material should be stored in closed containers, in a secure area to prevent container damage and subsequent spillage.

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

Avoid breathing vapor or mist. 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 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.



9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Odor	Yellowish brown clear liquid with faint chlorine odor
pH	5.9 (1% aqueous solution)
Specific Gravity	1.150 @ 25 deg C
Vapor Pressure	Negligible
Vapor Density	NA
Melting Point	NA
Freezing Point	< 0 deg C
Boiling Point	100 deg C
Solubility In Water	>50 g/100 mL
Evaporation Rate	NE
Percent Volatile	>= 55
Bulk Density	9.58 lbs/gal
SCAQMD VOC	2.8%

10 STABILITY AND REACTIVITY

Stability

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

Hazardous Polymerization

Does not occur.

Incompatibility

Materials that react with water.

Hazardous Decomposition Products

Extreme temperatures convert Endothall product to endothall anhydride which is a strong vesicant causing blistering of eyes, mucous membranes and skin. (see section 16)

11 TOXICOLOGICAL INFORMATION

Toxicological Information

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

Mono(N,N-dimethylalkylamine) salt of endothall (technical active ingredient)

No skin allergy was observed in guinea pigs following repeated exposure.

Single exposure (acute) studies indicate:

Oral - Slightly Toxic to Rats (LD50 1,173.7 mg/kg)

Dermal - Moderately Toxic to Rabbits (LD50 361.7 mg/kg)

Inhalation - Slightly Toxic to Rats (4-hr LC50 0.7 mg/l)

Skin Irritation - Severely Irritating to Rabbits

Eye Irritation - Severely Irritating to Rabbits

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



11 TOXICOLOGICAL INFORMATION

Intentional swallowing of 40 ml of endothall led to death within 12-hours. Skin allergy was observed in guinea pigs following repeated exposure. Repeated dietary administration (via gelatin capsules) produced vomiting, diarrhea, sluggish movements, and liver, kidney and blood effects in dogs. Long-term dietary administration to rats and mice produced effects in the glandular stomach. High mortality rates and intestinal tumors considered to be secondary to the effects in the stomach were observed in mice. Long-term application to the skin of mice produced no tumors. No birth defects were observed in the offspring of rats given endothall orally during pregnancy, even at dosages which produced adverse effects on the mothers. Skeletal anomalies were observed in the offspring of rabbits and mice given endothall orally during pregnancy, but only at dosages which produced adverse effects in the mothers. Endothall produced no genetic changes in standard tests using bacterial and animal cells or animals.

12 ECOLOGICAL INFORMATION

Ecotoxicological Information

Mono(N,N-dimethylalkylamine) salt of endothall (technical active ingredient)

This material is highly toxic to *Daphnia magna* (48-hr LC50 0.36 mg/l), fathead minnow (96-hr LC50 0.94 mg/l), golden shiner (120-hr LC50 0.32 mg/l) and scud (96-hr TL50 0.48 mg/l). It is moderately toxic to mussels (48-hr LC50 4.85 mg/l) and rainbow trout (96-hr LC50 1.7 mg/l). The 7-day LC50 for *Ceriodaphnia* was 0.18-0.19 mg/l and 0.304 mg/l for fathead minnow.

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

No data are available.

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.



14 TRANSPORT INFORMATION

DOT Name Pesticides, liquid, toxic, n.o.s.
DOT Technical Name Endothall
DOT Hazard Class 6.1
UN Number 2902
DOT Packing Group PG III
RQ 1000 lbs. (For endothall)
DOT Special Information The use of either the Keep Away from Foodstuffs (KAFF) or Toxic label is authorized until October 1, 2003. After that date the KAFF label is no longer authorized for use.

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
Mono(N,N-dimethylalkylamine) salt of endothall	NE	NE

16 OTHER INFORMATION

Revision Information

Revision Date 15 MAY 2001 Revision Number 3
Supercedes 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

Miscellaneous

Proper PPE and ventilation should be used when using high heat, such as welding or oxy-acetylene torch cutting, on machinery that may have endothall residue.



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Cerexagri, Inc.

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