

**1 PRODUCT AND COMPANY IDENTIFICATION****Agrichemicals Group**

Elf Atochem North America, Inc.
2000 Market St.
Philadelphia, PA 19103-3222

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 HERBICIDE 273 Sugar Beet Herbicide

Product Synonym(s)

Chemical Family Dicarboxylic Acid
Chemical Formula C8H8O3K2
Chemical Name Dipotassium endothall
EPA Reg Num 4581-223
Product Use Used in the control of weeds

2 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS RegistryNumber	Typical Wt. %	OSHA
Endothal-potassium	2164-07-0	40.3	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)

The components of this product are all on the TSCA inventory list.

3 HAZARDS IDENTIFICATION**Emergency Overview**

Yellow brown liquid with very faint chlorine odor
KEEP OUT OF REACH OF CHILDREN.
DANGER!
MAY BE FATAL IF INHALED.
MAY BE FATAL IF SWALLOWED.
HARMFUL IF ABSORBED THROUGH SKIN.

Causes irreversible eye damage
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, this material is considered to be moderately toxic if swallowed, slightly toxic if absorbed through skin or inhaled, non-irritating to skin and causes irreversible eye damage.

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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 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	N/A	
Flash Point	N/A	Flash Point Method
Flammable Limits- Upper	N/A	
Lower	N/A	

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

Handling

Do not breathe mist.

Do not get in eyes, on skin or on clothing. Use only with adequate ventilation. Keep container closed. Empty container may contain hazardous residues.

Storage

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

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7 HANDLING AND STORAGE

Keep from freezing; material may precipitate.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls

Investigate engineering techniques to reduce exposures. Provide ventilation if necessary to minimize exposures. If practical, use local mechanical exhaust ventilation 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 respirator with a N 95 particulate filter. If exposures cannot be kept at a minimum with engineering controls, use NIOSH approved respiratory protection equipment as noted above. 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.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Odor	Yellow brown liquid with very faint chlorine odor
pH	7.4 (nominal)
Specific Gravity	1.285 @ 25 deg C
Vapor Pressure	Negligible
Vapor Density	NE
Melting Point	NA
Freezing Point	NA
Boiling Point	>100 C
Solubility In Water	Miscible
Percent Volatile	59.7

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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 may convert endothal product to endothal anhydride, a strong vesicant, causing blistering of eyes, mucous membranes, and skin. (See section 16).

11 TOXICOLOGICAL INFORMATION

Toxicological Information

Endothal-potassium

Single exposure (acute) studies indicate that this material is moderately toxic to rats if swallowed [LD50 99.5 mg/kg (Category II)], slightly toxic to rabbits if absorbed through skin [LD50 2,000 mg/kg (Category III)] or rats if inhaled [4-hr LC50 0.83 mg/l; aerosol (Category II)], causes irreversible eye damage in rabbits (Category I), and is non-irritating to rabbit skin (Category IV).

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.

12 ECOLOGICAL INFORMATION

Ecotoxicological Information

Endothal-potassium

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.

Chemical Fate Information

No data are available.

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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.
DOT Special Information	DOT Labeling = Under DOT HM 215C the Keep Away From Foodstuffs (KAFF) label is authorized until October 2003. The Toxic label will replace the KAFF label and is also 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

The components of this product are all on the TSCA inventory list.

Ingredient Related Regulatory Information:

SARA Reportable Quantities

Endothal-potassium

CERCLA RQ

SARA TPQ

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	05 OCT 2000	Revision Number	1
Supersedes Revision Dated			

Revision Summary

Enter into MSDS system

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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 endotoxin residue.

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