



Material Safety Data Sheet

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A company of Hoechst and NOR-AM

ACCLAIM® 1EC HERBICIDE

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

AgrEvo-USA Company
Agribusiness Division
Little Falls Centre One
2711 Centerville Road
Wilmington, DE 19808

EMERGENCY TELEPHONE NUMBERS

(302)892-3000 (Days)
CHEMTREC (800)424-9300 (Nights/Weekends)

PRODUCT NAME: **ACCLAIM® 1EC HERBICIDE**

CHEMICAL NAME: *fenoxaprop-ethyl:(±)-ethyl 2-[4-[[6-chloro-2-benzoxazolyl)oxy]phenoxy]propanoate*

CHEMICAL FAMILY: *benzoxazole*

CHEMICAL FORMULA: *Mixture (active ingredient: fenoxaprop-p-ethyl)*

EPA REGISTRY NUMBER: 8340-18

MSDS IDENTIFICATION CODE/NUMBER: 000143

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	EXPOSURE LIMITS	CONCENTRATION PERCENT BY WEIGHT
fenoxaprop-ethyl: CAS NUMBER: 66441-23-4	OSHA PEL: None established	12.5
Inert Ingredients CAS NUMBER: Trade Secret		87.5
[Ethyl]benzene CAS NUMBER: 100-41-4	OSHA-PEL = ACGIH-TLV = 100 ppm = 434-435 mg/m ³ ; ACGIH-STEL (15min) = 125 ppm = 543-545 mg/m ³	7.0
N,N-Dimethylformamide (DMF) CAS NUMBER: 68-12-2	OSHA-PEL=ACGIH-TLV (TWA): 10 ppm (30 mg/m ³) Skin designation	25.0
m-Xylene CAS NUMBER: 108-38-3	ACGIH-TLV (TWA): 100 ppm(434 mg/m ³) ACGIH-STEL (15 min): 150 ppm (651 mg/m ³)	17.0

INERT INGREDIENTS (87.5%): *only the regulated ingredients, are listed above. For a complete regulatory listing of components, please refer to Section 15 (Regulatory Information).*

SECTION 3. HAZARDS IDENTIFICATION

***** EMERGENCY OVERVIEW *****

Flammable liquid. Harmful if swallowed, absorbed through the skin or inhaled. Direct eye contact causes substantial but temporary eye injury. Overexposure to product solvents causes headaches, dizziness, difficult breathing, irritation of eyes, skin and other mucous membranes. Do not take internally. May induce CNS depression-like symptoms at lethal dose.

POTENTIAL HEALTH EFFECTS

PRIMARY ROUTE(S) OF ENTRY

Skin absorption, vapor and mist inhalation.

EYES

Direct contact causes substantial but temporary eye injury.

AGREVO

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SECTION 3. HAZARDS IDENTIFICATION - Continued

SKIN

A slight irritant on brief contact. Prolonged contact may cause moderate skin irritation. The product can be absorbed through the skin.

INGESTION

Harmful if swallowed. Do not take internally. (See below)

INHALATION

Harmful if inhaled.

SIGNS AND SYMPTOMS

MEDICAL ADVISORY: *Acclaim Herbicide contains DMF and xylene range aromatic solvent. DMF is a skin irritant and causes liver and kidney damage and central nervous system depression. Xylene is a skin, eye and mucous membrane irritant. Overexposure to xylene can cause headache, dizziness, and anemia. Ethyl benzene is a skin, eye and mucous membrane irritant. Overexposure to ethyl benzene can cause conjunctivitis, tearing, nose and throat irritation, reddening and blistering of skin, difficult breathing, unsteady gait and dizziness. Do not take internally. May induce CNS depression-like symptoms at lethal doses.*

SECTION 4. FIRST AID MEASURES

EYES

Immediately flush eyes with water for 15 minutes. Get medical attention immediately.

SKIN

Wash with soap and water.

INGESTION

Acclaim Herbicide contains petroleum distillates. If swallowed call a physician who may induce vomiting. Vomiting should be supervised by a physician because of the possible pulmonary damage via aspiration of the solvent. If possible, bring the container and labeling to the attending physician.

INHALATION

Remove individual to fresh air. Apply artificial respiration if necessary.

SECTION 5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASH POINT: $93 \pm 4^{\circ}\text{F}$ Close cup (FLAMMABLE)

EXTINGUISHING MEDIA

SMALL FIRE: *Dry chemical or CO₂.*

LARGE FIRE: *Foam or water - move containers from fire area if without risk. Cool containers with water from maximum distance.*

FIRE FIGHTING INSTRUCTIONS

Keep upwind. Isolate hazard area. Avoid inhalation of smoke and fumes. Use water or foam to reduce fumes. Do not touch spilled material.

SECTION 6. ACCIDENTAL RELEASE MEASURES

LAND SPILL OR LEAK: *Use proper protective equipment to minimize personal exposure (Section 8). Ignitable - Take up with sand, earth or other non-combustible absorbent material or dike for later disposal. Avoid flame or sparks.*

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SECTION 6. ACCIDENTAL RELEASE MEASURES - Continued

GENERAL AND DISPOSAL: Use proper protective equipment to minimize personal exposure (see Section 8). Take all necessary action to prevent and to remedy the effects of the spill. Ensure that the disposal is in compliance with federal or local disposal regulations. Notify the appropriate authorities immediately. (See Section 15 for applicable Reportable Quantity (RQ) and other federal regulatory information).

SECTION 7. HANDLING AND STORAGE

HANDLING PRECAUTIONS

HARMFUL IF SWALLOWED, INHALED, OR ABSORBED THROUGH THE SKIN. May cause substantial but temporary eye injury. **DO NOT GET IN EYES, ON SKIN OR CLOTHING.** Do not take internally. Use the recommended equipment while handling this product (See Personal Protection Section 8). Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

STORAGE PRECAUTIONS

Avoid contact with flame or sparks. Store where contamination of fertilizer, seed and foodstuffs will not occur.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS

Control airborne concentrations below the exposure guideline (see Section 2 for OSHA/ACGIH exposure limits). Use with adequate ventilation. Local exhaust ventilation may be necessary, especially when used in a confined area. Handle only in ventilated area.

FOR APPLICATORS AND HANDLERS (NON-AGRICULTURAL USES): The WPS does not apply for uses on rights-of-way, commercial and residential turf, golf courses and ornamentals in residential and commercial areas. Follow the PPE listed under manufacturing and packaging employees.

FOR APPLICATORS AND HANDLERS (AGRICULTURAL USES): The personal protective equipment (PPE) for agricultural uses are specified under the Subtitle: Note to Applicators and Handlers of Agricultural Products. (see page 4)

FOR MANUFACTURING AND PACKAGING EMPLOYEES: The personal protective equipment (PPE) in accordance with OSHA standards are recommended immediately below.

EYE/FACE PROTECTION

Goggles or face shield.

SKIN PROTECTION

Impermeable rubber gloves (such as neoprene or PVC).

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION - Continued

RESPIRATORY PROTECTION

In case of spill, leak or emergency, use chemical cartridge-type respirator approved by the National Institute of Occupational Health and Safety.

OTHER/GENERAL PROTECTION

Hat, impermeable pants & shirts and waterproof boots.

NOTE TO APPLICATORS AND HANDLERS OF AGRICULTURAL PRODUCTS :

For agricultural products which are within the scope of the EPA Worker Protection Standards (WPS) issued during 1993, all users must refer to the statement below or the Product Label for WPS-specified Personal Protective Equipment (PPE), Restricted Entry Interval (REI), and other Precautionary Statements.

PERSONAL PROTECTIVE EQUIPMENT FOR APPLICATORS AND HANDLERS:

Applicators and handlers must wear :

*Long-sleeved shirts and long pants
Chemical-resistant gloves such as barrier laminate, butyl rubber
≥ 14 mils, nitrile rubber ≥ 14 mils, or viton ≥ 14 mils
Shoes-plus-socks
Protective eyewear*

PERSONAL PROTECTIVE EQUIPMENT REQUIRED FOR EARLY ENTRY INTO TREATED AREAS:

For entry into treated area during the restricted entry interval (REI) of 24 hours that involves contact with anything that has been treated such as plants, soil, or water is:

*Coveralls
Chemical-resistant gloves such as barrier laminate, butyl rubber
≥ 14 mils, nitrile rubber ≥ 14 mils, or viton ≥ 14 mils
Shoes plus socks
Protective eyewear*

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Liquid

BASIC PHYSICAL PROPERTIES

PHYSICAL STATE: *Liquid*
BOILING POINT: *129.5°C*
VAPOR PRESSURE: *5.9 mbar3 @ 68°F*

DENSITY: *0.98 gm/cm3 @ 68°F (20°C)*

SECTION 10. STABILITY AND REACTIVITY

STABILITY: *Stable*

HAZARDOUS POLYMERIZATION: *Will not occur*

SECTION 11. TOXICOLOGICAL INFORMATION

EYE EFFECTS

Warning, a moderate eye irritant - Direct contact causes substantial but temporary eye injury.

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SECTION 11. TOXICOLOGICAL INFORMATION - Continued

SKIN EFFECTS

DERMAL LD50 (rabbit): 2,000 mg/kg. A slight to moderate skin irritant, depending on contact period.

ACUTE ORAL EFFECTS

ORAL LD50 (rat): 3,310 mg/kg (male); 3,400 (female)

ACUTE INHALATION EFFECTS

INHALATION LC50: 3.9 mg/m³ (3.9 mg/l) For transportation purposes, the equivalent LC50 (rat - 1hr) is: 15.6 mg/l

CHRONIC (CANCER INFORMATION)

Fenoxaprop-p-ethyl: reduced blood lipids and cholesterol and increased liver weights were adaptive and reversible changes induced by fenoxaprop-p-ethyl in sub-chronic studies in rats and mice. These findings were not apparent in lifetime feeding studies in rats and mice confirming their transient nature. Lifetime feeding studies produced no carcinogenic response in rats or mice.

Dimethylformamide: This chemical is listed by IARC as a possible human carcinogen (Group 2B); human evidence is limited; animal evidence is inadequate.

m-Xylene: This chemical is not considered by IARC as a human carcinogen (Group 3); human evidence is inadequate; animal evidence is inadequate.

CARCINOGENICITY: NTP: No IARC: No OSHA: No

TERATOGENICITY (BIRTH DEFECTS)

Teratology studies were performed on fenoxaprop-ethyl in mice, rats, rabbits and monkeys by both oral and dermal route of exposure. No embryotoxic or fetotoxic effects were seen at doses non-toxic to the mothers.

REPRODUCTIVE EFFECTS

Reduced pup body weight gain during lactation was observed at high doses in a two generation reproduction study in rats. There were no effects on fertility in this study.

Contains DMF and xylene range aromatic solvent and causes reproductive effects in rats via inhalation.

MUTAGENICITY (GENETIC EFFECTS)

A variety of mutagenicity studies in bacterial and mammalian cells: in vitro and in vivo have shown fenoxaprop-p-ethyl is non-mutagenic.

Acclaim Herbicide contains DMF and xylene range aromatic solvent. It is a mutagen in vitro. DMF was shown to be mutagenic when tested in in vitro studies.

SECTION 12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS: The organic solvents in this product may be toxic to fish and wildlife. Keep out of all water supplies.

SECTION 13. DISPOSAL CONSIDERATIONS

Container Disposal: Empty containers should be triple rinsed into the spray tank during operation. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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SECTION 14. TRANSPORT INFORMATION

PROPER SHIPPING NAME: *Flammable liquid, n.o.s., (contains N,N-Dimethylformamide and xylene), UN 1993 PG III*

DOT SHIPPING LABEL: *Flammable Liquid*

SECTION 15. REGULATORY INFORMATION

U.S. FEDERAL REGULATORY INFORMATION

SARA TITLE III:

Section 302 (EHS) ingredients: *Not listed*

Section 304 (CERCLA & EHS) ingredients: *Dimethylformamide (RQ = 1); m-Xylene (RQ = 1000); Ethyl benzene (RQ = 1000)*

SARA TITLE III NOTIFICATIONS AND INFORMATION
REPORTABLE QUANTITY (POUNDS): 4

SARA TITLE III - HAZARD CLASSES: *Acute Health Hazard - "Yes"
Chronic Health Hazard - "Yes"
Fire Hazard - "Yes"
Sudden Release of Pressure Hazard - "No"
Reactivity Hazard - "No"*

SARA TITLE III - SECTION 313 SUPPLIER NOTIFICATION

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986 and of 40 CFR 372:

<u>CAS NUMBER</u>	<u>INGREDIENT NAME</u>	<u>PERCENT BY WEIGHT</u>
100-41-4	Ethyl benzene	7.0
108-38-3	m-Xylene	17.0

This information must be included on all MSDSs that are copied and distributed for this material.

SECTION 16. OTHER INFORMATION

NFPA HAZARD RATING - HEALTH: 1 Slight
- FIRE: 3 High
- REACTIVITY: 0 Negligible

MSDS IDENTIFICATION CODE/NUMBER: 000143

PREPARED BY: *Dept. of Regulatory Affairs* PHONE: (302)892-3051
SUPERCEDES MSDS DATED: 03/01/94

DATE AND TIME OF PRINTING: 11/30/94 08:19:47

REVISION INDICATOR: *Company name change; revised labeling and PPE requirements in accordance with the EPA Worker Protection Standard (WPS) (Sections 7 & 8); revised Exposure Limits (Section 2).*

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

THIS INFORMATION IS PROVIDED IN GOOD FAITH BUT WITHOUT EXPRESS OR IMPLIED WARRANTY