

FOXFIRE

Date: 7/15/2015
 Replaces: 3/6/2015

1. PRODUCT IDENTIFICATION

Product identifier on label: **FOXFIRE HERBICIDE**
 Product No.: A17713B
 Use: Herbicide
 Manufacturer: Syngenta Crop Protection, LLC
 Post Office Box 18300
 Greensboro NC 27419
 Manufacturer Phone: 1-800-334-9481

Emergency Phone: 1-800-888-8372

2. HAZARDS IDENTIFICATION

Classifications: Skin Corrosion/Irritation: Category 2
 Inhalation: Category 3
 Skin Sensitizer: Category 1B
 Reproductive Toxicity: Category 2
 Specific Target Organ Toxicity: Repeated Category 2
 Specific Target Organ Toxicity: Respiratory Irritation Category 3
 Aspiration Hazard: Category 1
 Flammable Liquid: Category 4
 Eye Damage/Irritation: Category 2B
 Carcinogenicity: Category 1B

Signal Word (OSHA): Danger

Hazard Statements: Combustible liquid
 May be fatal if swallowed and enters airways
 Causes skin irritation
 May cause an allergic skin reaction
 Causes eye irritation
 Toxic if inhaled
 May cause respiratory irritation
 May cause cancer
 Suspected of damaging fertility or the unborn child
 May cause damage to organs through prolonged or repeated exposure

Hazard Symbols:



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Precautionary Statements: If swallowed: Immediately call a poison center, doctor or Syngenta.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Do NOT induce vomiting.
If eye irritation persists: Get medical advice.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, sparks, open flames, hot surfaces. No smoking.
Do not breathe mist, vapors, spray.
Wash hands and face thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves, protective clothing, eye protection.
If on skin: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
If exposed or concerned: Get medical advice/attention.
Call a poison center, doctor or Syngenta.
Get medical advice if you feel unwell.
See Section 4 First Aid Measures.
Take off contaminated clothing and wash it before reuse.
In case of fire: Use dry chemical, foam or CO₂ for extinction.
Store in a well-ventilated place. Keep cool.
Store locked up.
Dispose of contents and container in accordance with local regulations.

Other Hazard Statements: None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Common Name	CAS Number	Concentration
Naphthalene	Naphthalene	91-20-3	<1.0%
Tetrahydrofurfuryl Alcohol (THFA)	Tetrahydrofurfuryl Alcohol (THFA)	97-99-4	Trade Secret
Cloquintocet-Mexyl	Cloquintocet-Mexyl	99607-70-2	2.5%
Petroleum Solvent	Petroleum Solvent	Trade Secret	Trade Secret
Other ingredients	Other ingredients	Trade Secret	<86.48%
(D+)-ethyl 2-(4-(6-chloro-2-benzoxazolylloxy)-phenoxy)propanoate	Fenoxaprop-P-Ethyl	71283-80-2	5.01%
Propanoic acid, 2,2-dimethyl-,8-(2,6-diethyl-4-methylphenyl)-1,2,4,5-tetrahydro-7-oxo-7H-pyrazolo[1,2-d][1,4,5]oxadiazepin-9-yl ester	Pinoxaden	243973-20-8	5.01%

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Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

Have the product container, label or Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison control center or doctor, or going for treatment.

- Ingestion: If swallowed: Call Syngenta (800-888-8372), a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so after calling 800-888-8372 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
- Eye Contact: If in eyes: 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 Syngenta (800-888-8372), a poison control center or doctor for treatment advice.
- Skin Contact: If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.
- Inhalation: If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call Syngenta (800-888-8372), a poison control center or doctor for further treatment advice.

Most important symptoms/effects:

- Eye irritation
- Skin irritation
- Allergic skin reaction
- Respiratory irritation

Indication of immediate medical attention and special treatment needed:

There is no specific antidote if this product is ingested.

Treat symptomatically.

Persons suffering a temporary allergic reaction may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

Contains petroleum distillate - vomiting may cause aspiration pneumonia.

5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:

Use dry chemical, foam or CO2 extinguishing media. If water is used to fight fire, dike and collect runoff.

Specific Hazards:

Combustible liquid. Can release vapors that form explosive mixtures at temperatures at or above the flash point. Heavy vapors can flow along surfaces to distant ignition sources and flash back.

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

Special protective equipment and precautions for firefighters:

Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion.

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:

Follow exposure controls/personal protection outlined in Section 8.

Methods and materials for containment and cleaning up:

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

7. HANDLING AND STORAGE

Precautions for safe handling:

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Conditions for safe storage, including any incompatibilities:

Store locked up.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Occupational Exposure Limits:

Chemical Name	OSHA PEL	ACGIH TLV	Other	Source
Naphthalene	10 ppm TWA	10 ppm TWA (skin)	10 ppm TWA	NIOSH
Tetrahydrofurfuryl Alcohol (THFA)	Not Established	Not Established	0.5 ppm TWA	AIHA
Cloquintocet-Mexyl	Not Established	Not Established	5 mg/m ³ TWA	Syngenta
Petroleum Solvent	Not Established	Not Established	100 mg/m ³ (15 ppm) TWA based on total hydrocarbon	Manufacturer
Other ingredients	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Fenoxaprop-P-Ethyl	Not Established	Not Established	0.1 mg/m ³ TWA	Manufacturer
Pinoxaden	Not Established	Not Established	0.1 mg/m ³ (ceiling)	Syngenta

Appropriate engineering controls:

Use effective engineering controls to comply with occupational exposure limits (if applicable).

Individual protection measures:

Ingestion:

Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

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Eye Contact:

Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Skin Contact:

Where contact is likely, wear chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber or Viton), coveralls, socks and chemical-resistant footwear.

Inhalation:

A combination particulate/organic vapor respirator should be used until effective engineering controls are installed to comply with occupational exposure limits, or until exposure limits are established. Use a NIOSH certified respirator with an organic vapor (OV) cartridge or canister with any R, P or HE filter.

Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Golden liquid

Odor: Aromatic

Odor Threshold: Not Available

pH: 5.1 (1% solution in deionized H₂O @ 77°F [25°C])

Melting point/freezing point: Not Applicable

Initial boiling point and boiling range: Not Available

Flash Point (Test Method): 176°F (Pensky-Martens CC)

Flammable Limits (% in Air): Not Available

Flammability: Combustible liquid

Vapor Pressure: Fenoxaprop-P-Ethyl 1.4 x 10⁽⁻⁶⁾ mmHg @ 68°F (20°C)Pinoxaden 3.5 x 10⁽⁻⁹⁾ mmHg @ 77°F (25°C)

Vapor Density: Not Available

Relative Density: 0.9974 g/cm³ ; 8.323 lbs/gal @ 68°F (20°C)

Solubility (ies): Fenoxaprop-P-Ethyl 0.7 - 0.8 mg/l @ 77°F (25°C)

Pinoxaden 200 mg/l @ 77°F (25°C)

Partition coefficient: n-octanol/water: Not Available

Autoignition Temperature: 554°F

Decomposition Temperature: Not Available

Viscosity: Not Available

Other: None

10. STABILITY AND REACTIVITY

Reactivity: Not reactive.

Chemical stability: Stable under normal use and storage conditions.

Possibility of hazardous reactions: Will not occur.

Conditions to Avoid: None known.

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Incompatible materials: None known.

Hazardous Decomposition Products: None known.

11. TOXICOLOGICAL INFORMATION

Health effects information

Likely routes of exposure: Dermal, Inhalation

Symptoms of exposure: Eye irritation, Skin irritation, Respiratory irritation

Delayed, immediate and chronic effects of exposure: Eye irritation, Skin irritation, Allergic skin reaction, Respiratory irritation

Numerical measures of toxicity (acute toxicity/irritation studies (finished product))

Ingestion:	Oral (LD50 Female Rat) :	5000 mg/kg body weight
Dermal:	Dermal (LD50 Rat) :	> 5000 mg/kg body weight
Inhalation:	Inhalation (LC50 Male Rat) :	0.53 - 2.48 mg/l air - 4 hours
Eye Contact:	Moderately Irritating (Rabbit)	
Skin Contact:	Moderately Irritating (Rabbit)	
Skin Sensitization:	Sensitizing (Guinea Pig)	

Reproductive/Developmental Effects

Fenoxaprop-P-Ethyl : In developmental studies, effects were seen in the mother and the pups in the high dose groups. The manufacturer does not consider these results as being significant. However, the compound has been reviewed by the European Food Safety Authority (EFSA), and the classification "Toxic to reproduction", category 3 (R63) has been proposed to the European Chemicals Agency (EChA).

Pinoxaden: Teratogenicity: Not teratogenic in rats or rabbits.

Reproduction: No reproductive effects observed.

Chronic/Subchronic Toxicity Studies

Fenoxaprop-P-Ethyl : Not Available

Pinoxaden: Subchronic: Predominantly kidney and liver effects at high doses.

Chronic: Predominantly kidney and liver effects at high doses.

Neurotoxicity: No neurotoxic effects (acute or subchronic).

Carcinogenicity

Fenoxaprop-P-Ethyl : In vitro and in vivo mutagenicity tests to not indicate genotoxic activity.

Did not show carcinogenic effects in animal experiments.

Pinoxaden: No compound-related tumors in rats or mice.

Chemical Name	NTP/IARC/OSHA Carcinogen
Naphthalene	See "Toxicity", Sec. 11
Tetrahydrofurfuryl Alcohol (THFA)	No
Cloquintocet-Mexyl	No
Petroleum Solvent	No
Other ingredients	No

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(D+)-ethyl 2-(4-(6-chloro-2-benzoxazolyloxy)-phenoxy)propanoate No

Propanoic acid, 2,2-dimethyl-,8-(2,6-diethyl-4-methylphenyl)-1,2,4,5-tetrahydro-7-oxo-7H-pyrazolo[1,2-d][1,4,5]oxadiazepin-9-yl ester No

Other Toxicity Information

None

Toxicity of Other Components

Cloquintocet-Mexyl

Causes mild eye and skin irritation. Toxic if inhaled or swallowed. May cause sensitization by skin contact.

Naphthalene

Exposure to naphthalene can cause cataracts, liver damage, kidney failure, respiratory failure, hematuria, anemia, damage to red blood cells, leukocytosis, or coma.

Carcinogen Status:

NTP: Anticipated Carcinogen

IARC: Group 2B Possible Human Carcinogen

Other ingredients

Not Applicable

Petroleum Solvent

May cause eye and skin irritation. High vapor/aerosol concentrations (attainable at elevated temperatures well above ambient) are irritating to the eyes and respiratory tract, and may cause headaches, dizziness, anaesthesia, drowsiness, unconsciousness and other central nervous effects. May be harmful if swallowed and inhaled.

Tetrahydrofurfuryl Alcohol (THFA)

May be harmful if swallowed. Causes respiratory tract irritation. Causes skin irritation. May cause digestive tract irritation. Causes severe eye irritation. Inhalation overexposure may cause dizziness, incoordination and unconsciousness. Chronic overexposure may affect the kidney.

Target Organs

Active Ingredients

Fenoxaprop-P-Ethyl : Liver, eye

Pinoxaden: Kidney

Inert Ingredients

Cloquintocet-Mexyl: Eye, skin, lung, digestive tract

Naphthalene: Eye, liver, kidney, respiratory tract, blood, CNS

Other ingredients: Not Applicable

Petroleum Solvent: Eye, skin, CNS, respiratory tract

Tetrahydrofurfuryl Alcohol (THFA): Digestive tract, respiratory tract, skin, eye, CNS, kidney

12. ECOLOGICAL INFORMATION

Eco-Acute Toxicity

Fenoxaprop-P-Ethyl :

Fish (Bluegill Sunfish) 96-hour LC50 0.31 - 0.58 mg/l

Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 > 1.058 mg/l

Bird (Bobwhite Quail) LD50 > 2000 mg/kg

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Pinoxaden:

Fish (Rainbow Trout) 96-hour LC50 10.3 mg/l (Dynamic conditions)
Green Algae 72-hour ErC50 41 mg/l
Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 52 mg/l

Environmental Fate

Fenoxaprop-P-Ethyl :

The information presented here is for the active ingredient, fenoxaprop-p-ethyl.
Slightly soluble in water, absorbs strongly to soils, and has low mobility.

Pinoxaden:

The information presented here is for the active ingredient, pinoxaden.
Compound degrades rapidly in the environment with a DT50 of less than 5 days in field and laboratory studies.

13. DISPOSAL CONSIDERATIONS

Disposal:

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Not Applicable

Listed Waste: Not Applicable

14. TRANSPORT INFORMATION

DOT Classification

Ground Transport - NAFTA

< 119 gallons: Not regulated

> 119 gallons:

Proper Shipping Name: Compounds, Weed Killing, Liquid, (Naphthalene, Petroleum Solvents)

Hazard Class: Combustible Liquid

Identification Number: NA 1993

Packing Group: PG III

Cargo Tanks:

Proper Shipping Name: Compounds, Weed Killing, Liquid, (Naphthalene, Petroleum Solvents)

Hazard Class: Combustible Liquid

Identification Number: NA 1993

Packing Group: PG III

RQ Naphthalene = 100 pounds

Comments

Water Transport - International

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Fenoxaprop-P-Ethyl), Marine Pollutant

Hazard Class: Class 9

Identification Number: UN 3082

Packing Group: PG III

Air Transport

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Fenoxaprop-P-Ethyl)

Hazard Class: Class 9

Identification Number: UN 3082

Packing Group: PG III

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15. REGULATORY INFORMATION

Pesticide Registration:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Warning: Causes skin irritation. Harmful if swallowed. Causes moderate eye irritation. Do not get on skin or on clothing. Avoid contact with eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

EPA Registration Number(s):
 100-1429

EPCRA SARA Title III Classification:

- Section 311/312 Hazard Classes: Acute Health Hazard
 Chronic Health Hazard
 Fire Hazard
- Section 313 Toxic Chemicals: Naphthalene <1.0% (CAS No. 91-20-3)

CERCLA/SARA 304 Reportable Quantity (RQ):

Report product spills > 3600 gal (based on naphthalene [RQ = 100 lbs.] content in the formulation)

RCRA Hazardous Waste Classification (40 CFR 261):

Not Applicable

TSCA Status:

Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

NFPA Hazard Ratings

Health: 3
 Flammability: 2
 Instability: 0

HMIS Hazard Ratings

Health: 3
 Flammability: 2
 Reactivity: 0

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme
*	Chronic

Syngenta Hazard Category: C,S

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 8/30/2011
 Revision Date: 7/15/2015 Replaces: 3/6/2015
 Section(s) Revised: 2, 4, 11

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.

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