

ENFILADE™ DX

SAFETY DATA SHEET

EMERGENCY CALL: 1-800-424-9300 (CHEMTREC)

1. IDENTIFICATION

PRODUCT NAME: Enfilade DX
DESCRIPTION: Emulsifiable Concentrate Herbicide
EPA REG NO.: 91234-308
COMPANY IDENTIFICATION: Atticus, LLC
940 NW Cary Parkway, Suite 200
Cary, NC 27513

2. HAZARD IDENTIFICATION

DANGER

May be fatal if swallowed and enters airways (H304)

May cause an allergic skin reaction (H317)

Suspected of damaging fertility or the unborn child (H361)

Toxic if inhaled (H331)

Very toxic to aquatic life. (H400)

Toxic to aquatic life with long lasting effects (H411)



HAZARD CLASSIFICATION

Health Hazards	Category	Physical Hazards	Category
Aspiration Hazard	1	None	-
Skin Sensitization	1B		
Reproductive Toxicity	2	Environmental Hazards	Category
Acute Toxicity, Inhalation	3	Hazardous to the Aquatic Environment – Acute	1
		Hazardous to the Aquatic Environment – Chronic	2

HAZARDS NOT REQUIRING CLASSIFICATION

Do not use or store near heat or open flame. Do not mix or allow coming in contact with oxidizing agents. Hazardous chemical reaction may occur.

PRECAUTIONARY STATEMENTS

Obtain, read and follow all safety instructions before use. Avoid breathing mist/spray. Use only outdoors or with adequate ventilation. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing. (P203+P261+P271+P272+P280)

IF SWALLOWED: Get emergency medical help immediately. Do not induce vomiting. (P301+P316+P331)

IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical help. Specific treatment see section 4 of this document. Take off contaminated clothing and wash it before reuse. (P302+P352+P333+P317+P321+P362+P364)

IF exposed or concerned, get medical advice (P318)

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get emergency medical help immediately Specific treatment see section 4 of this document. (P304+P340+P316+P321)

Avoid release to the environment. (P273)

Collect spillage. (P391)

Store in a well-ventilated place. Keep container tightly closed. Store locked up (P403+P233+P405)

Dispose of contents / container in accordance with local regulations. Refer to the product label for specific disposal instructions. (P501)

3. COMPOSITION / INFORMATION ON INGREDIENTS

Common Name	Chemical Name	CAS #	Composition
Fluazifop-P-butyl	Propanoic acid, 2-[4-[[5-(trifluoromethyl)-2-pyridinyl]oxy]phenoxy]-, butyl ester, (2R)-	79241-46-6	24.5%
Solvent, naphtha (petroleum), highly arom.	Solvent naphtha (petroleum), heavy arom.	64742-94-5	17% - 20%

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

4. FIRST AID MEASURES

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall® at **1-844-685-9173** for emergency medical treatment information. For chemical emergency: spill, leak, fire, exposure or accident, call CHEMTREC day or night within USA and Canada: **1-800-424-9300 or +1 703-527-3887** (collect calls accepted).

IF SWALLOWED: Call 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 by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

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 a poison control center or doctor for further treatment advice.

Note to physician: Contains petroleum distillate. Vomiting may cause aspiration pneumonia.

5. FIREFIGHTING MEASURES

Flash Point: >110°C (230°F)

Flammable Limits (LFL-UFL): Not determined

Fire and Explosion Hazards: Product contains combustible organic ingredients. Fire will produce dense black smoke containing hazardous products of combustion. Exposure to decomposition products may be a hazard to health. Flash back possible over considerable distance.

Extinguishing Medium: Small fires - water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Large fires - alcohol resistant foam.

Fire Fighting Equipment: Firefighters should be equipped with self-contained breathing apparatus and full protective clothing.

Fire Fighting Instructions: Evacuate area of all unnecessary personnel and fight fire from a safe distance upwind. Contain contaminated water / firefighting water; do not allow to enter drains or waterways. Cool closed containers exposed to fire with water spray.

NFPA Ratings: Health - 2 / Flammability - 2 / Reactivity - 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Isolate area and keep unnecessary and unprotected personnel from entering. Wear suitable personal protective clothing and equipment as described in Section 8 of this document.

Environmental Precautions: Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal.

Spill Cleanup: Dike spill using suitable absorbent or impervious materials such as sand or clay. Collect and contain contaminated absorbent and place in an appropriate container for disposal. Pump any free liquid into an appropriate container and decontaminate tools and equipment following cleanup. Collect washings for disposal.

7. HANDLING AND STORAGE

Handling: Do not get in eyes, on skin, or on clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

Storage: Store in a tightly closed container in a cool, dry place. Store in original container and out of reach of children, preferably in a locked storage area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of Exposure)	Control parameters/ Permissible concentration	Basis
solvent naphtha (petroleum), highly arom.	64742-94-5	TWA	8 ppm 50 mg/m ³	Supplier
fluazifop-P-butyl	79241-46-6	TWA	0.1 mg/m ³	Supplier

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash station and a safety shower.

Protective Clothing: All mixers, loaders, applicators and other handlers must wear long-sleeved shirt and long pants, chemical-resistant gloves such as barrier laminate, nitrile rubber ≥ 14 mils., or Viton ≥ 14 mils., and shoes plus socks.

General: Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry. Remove clothing/PPE 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	transparent light amber liquid
Odor:	mildly bitter
Melting / Freezing point:	no data available
Boiling Point / Boiling Range:	no data available
Flammability:	>230.0°F; >110.0°C
Flammability Limits (upper/lower):	no data available
Flash Point:	>110°C (230°F)
Ignition Temperature:	no data available
Decomposition Temperature:	no data available
pH:	4-5
Capillary Viscosity:	32.5 cP @ 26°C 17.0 cP @ 40°C
Solubility:	no data available
Partition coefficient:	no data available
Vapor Pressure:	no data available
Density:	8.16 lb/gal (0.978g/cm ³)
Relative Vapor Density:	no data available
Particle Characteristics:	no data available

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: None known.

CHEMICAL STABILITY: Stable under normal conditions.

INCOMPATIBILITY WITH OTHER MATERIALS: Incompatible with strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: No decomposition products expected under normal conditions of use.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

Information presented below is from testing done on an identical or substantially similar product:

ORAL TOXICITY (rat LD₅₀): >5,000 mg/kg

DERMAL TOXICITY (rat LD₅₀): >2,000 mg/kg

INHALATION TOXICITY (rat, male LC₅₀): 0.54 mg/L (4-hour)

EYE IRRITATION: No eye irritation (Rabbit)

SKIN IRRITATION: No skin irritation (Rabbit)

SKIN SENSITIZATION: Skin sensitizer (Guinea pig)

CARCINOGENICITY:

EPA: Not likely to be Carcinogenic to Humans (fluazifop-p-butyl)

ACGIH: Not Listed

NTP: Not Listed

IARC: Not Listed

OSHA: Not Listed

MUTAGENIC TOXICITY: Animal testing did not show any mutagenic effects.

REPRODUCTIVE/DEVELOPMENTAL TOXICITY: Embryo/foetotoxic effects have been reported in rats. Development neurotoxicity has been observed in the absence of maternal toxicity. Some evidence of adverse effects on development, based on animal experiments.

ASPIRATION TOXICITY: Solvent naphtha (petroleum), highly aromatic may be fatal if swallowed and enters airways.

12. ECOLOGICAL INFORMATION

This product is toxic to fish, aquatic invertebrates and plants.

The following information is for the active ingredient, Fluazifop-p-butyl:

AQUATIC TOXICITY

Bluegill sunfish (96-hour LC₅₀): 0.53 mg/L

Fathead Minnow (NOAEC): 0.238 mg/L

Daphnia (48-hour EC₅₀): 5.14 mg/L; LOAEC: 0.250 mg/L

Mysid Shrimp (96-hour EC₅₀): 0.216 mg/L; NOAEC: 1.7 mg/L

Pacific oyster (48-hour EC₅₀): 0.083 mg/L

Algae (IC₅₀): > 52.7 mg/L; NOAEC: 6.1 mg/L

AVIAN TOXICITY

Mallard duck (LD₅₀): >3,528 mg a.i./kg-bw; (NOAEC): 270 mg a.i./kg-diet

BEE TOXICITY

Honeybee (48-hour LD₅₀): 0.063 µg/bee

Honeybee (NOAEC): 235.4 mg ae/kg diet

13. DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: Pesticide spray mixture or rinsate that cannot be used should be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the 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.

CONTAINER DISPOSAL: Non-refillable container. Do not reuse or refill this container. Refer to the product label for specific container disposal instructions.

14. TRANSPORT INFORMATION

US-DOT:	Not regulated
IMDG:	UN3082, Environmentally Hazardous Substance, Liquid, N.O.S. (fluazifop-p-butyl), 9, PG III, Marine Pollutant
IATA:	
Shipped by air:	UN3082, Environmentally hazardous substance, liquid, N.O.S. (fluzaifop-p-butyl), 9, PG III, Marine Pollutant

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

FIFRA –

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. The following is the hazard information as required on the pesticide label:

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Harmful if absorbed through the skin, or inhaled. Causes moderate eye irritation. Do not get in eyes, on skin or on clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic invertebrates. Do not apply to areas where runoff into water bodies is expected. For Terrestrial Uses: Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame. Do not mix or allow coming in contact with oxidizing agents. Hazardous chemical reaction may occur.

All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The regulatory information presented below is pertinent only when this product is handled outside of the normal use and application as a pesticide. This product is excluded from listing requirements under EPA/TSCA.

SARA Title III – Section 302 Extremely Hazardous Substances

Not listed

SARA Title III – Section 311/312 Hazard Categories

Immediate (acute)

SARA Title III – Section 312 Threshold Planning Quantity

Not listed

SARA Title III – Section 313 Reportable Ingredients

Not listed

CERCLA Reportable Quantity (RQ) –

Not listed

CALIFORNIA PROP 65 STATUS –

This product does not contain any chemical known to the State of California to cause cancer or other reproductive harm.

CANADA –

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

16. OTHER INFORMATION

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

To the extent consistent with applicable law, neither Atticus, LLC nor Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ATTICUS, LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ATTICUS, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

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