SAFETY DATA SHEET

Anthem® Herbicide

SDS #: 50000532

Revision date: 2020-11-20

Format: NA Version 1.03



1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name Anthem® Herbicide

Other means of identification

Product Code(s) 50000532, 6927-A

Synonyms FLUTHIACET-METHYL: Acetic acid, [[2-chloro-4-fluoro-5-[(tetrahydro-3-oxo-1H,3H-[1,3,4]

thiadiazolo [3,4-alpha] pyridazin-1-ylidene) amino] phenyl] thio]-, methyl ester (CAS); methyl

[(2-chloro-4-fluoro-5-{

[(1E)-3-oxo-5,6,7,8-tetrahydro-1H,3H-[1,3,4]thiadiazolo[3,4-a]pyridazin-1-ylidene]amino}

phenyl)sulfanyl]acetate (IUPAC);

PYROXASULFONE:

3-[[[5-(difluoromethoxy)-1-methyl-3-(trifluoromethyl)-1H-pyrazol-4-yl]methyl]sulfonyl]-4,5-dih

ydro-5,5-dimethylisoxazole (CAS);

3-[5-(difluoromethoxy)-1-methyl-3-(trifluoromethyl)pyrazol-4-ylmethylsulfonyl]-4,5-dihydro-5,

5-dimethyl-1,2-oxazole (IUPAC)

Active Ingredient(s) Pyroxasulfone, Fluthiacet-methyl

Chemical Family Sulfonylioxazoline, Imine chemicals

Alternate Commercial Name F9310-6 SE Herbicide

Recommended use of the chemical and restrictions on use

Recommended Use: Herbicide

Restrictions on Use: Use as recommended by the label

Manufacturer Address

FMC Corporation 2929 Walnut Street Philadelphia, PA 19104

(215) 299-6000 (General Information)

SDS-Info@fmc.com (E-Mail General Information)

Emergency telephone number

Medical Emergencies:

1 800 / 331-3148 (PROSAR - U.S.A. & Canada)

1 651 / 632-6793 (PROSAR - All Other Countries - Collect)

For leak, fire, spill or accident emergencies, call:

1 800 / 424 9300 (CHEMTREC - U.S.A.)

1 703 / 527 3887 (CHEMTREC - Collect - All Other Countries)

2. HAZARDS IDENTIFICATION

Classification

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OSHA Regulatory Status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Carcinogenicity Category 2

GHS Label elements, including precautionary statements

EMERGENCY OVERVIEW

Danger

Hazard Statements

H351 - Suspected of causing cancer



Precautionary Statements - Prevention

P201 - Obtain special instructions before use

P202 - Do not handle until all safety precautions have been read and understood

P281 - Use personal protective equipment as required

Precautionary Statements - Response

P308 + P313 - If exposed or concerned: Get medical advice/attention

Precautionary Statements - Storage

P405 - Store locked up

Precautionary Statements - Disposal

P501 - Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

No hazards not otherwise classified were identified.

Other Information

Very toxic to aquatic life with long lasting effects.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Family

Sulfonylioxazoline, Imine chemicals.

Chemical name	CAS-No	Weight %
Pyroxasulfone	447399-55-5	22.61
Fluthiacet-methyl	117337-19-6	0.69
2-Methylnaphthalene	91-57-6	<10
Naphtha (petroleum), heavy aromatic	64742-94-5	<10
Propylene glycol	57-55-6	5-10
1-Methylnaphthalene	90-12-0	<7
Naphthalene	91-20-3	0.1-1

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4. FIRST AID MEASURES

Eye Contact Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove

contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison

control center or doctor for further treatment advice.

Skin Contact Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20

minutes. Call a poison control center or doctor for further treatment advice.

Inhalation Move to fresh air. If person is not breathing, call 911 (within the U.S. and Canada) or an

ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a

poison control center or doctor for further treatment advice.

Ingestion Call a poison control center or doctor immediately for treatment advice Have person sip a

glass of water if able to swallow. 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.

Most important symptoms and effects, both acute and delayed None known.

Indication of immediate medical attention and special treatment

needed, if necessary

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Foam. Carbon dioxide (CO2). Dry chemical. Water spray or fog.

Specific Hazards Arising from the

Chemical

Explosion data

Sensitivity to Mechanical Impact Sensitivity to Static Discharge

Not sensitive. Not sensitive.

Protective equipment and precautions for firefighters As in any fire, wear self-contained breathing apparatus and full protective gear. Isolate fire area. Evaluate downwind.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Isolate and post spill area. Remove all sources of ignition. Wear suitable protective clothing,

gloves and eye/face protection. For personal protection see section 8.

Other For further clean-up instructions, call FMC Emergency Hotline number listed in Section 1

"Product and Company Identification" above.

Environmental Precautions See Section 12 for additional Ecological Information.

Methods for Containment Dike to prevent runoff. Absorb with earth, sand or other non-combustible material and

transfer to containers for later disposal.

Methods for cleaning up Clean and neutralize spill area, tools and equipment by washing with bleach water and

soap. Absorb rinsate and add to the collected waste. Waste must be classified and labeled

prior to recycling or disposal. Dispose of waste as indicated in Section 13.

7. HANDLING AND STORAGE

Handling Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

Keep in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces **Storage**

and sources of ignition. Keep out of reach of children and animals. Keep/store only in

original container.

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Incompatible products None known

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical name	ACGIH TLV	OSHA PEL	NIOSH	Mexico
2-Methylnaphthalene (91-57-6)	TWA: 0.5 ppm	-	-	-
1-Methylnaphthalene (90-12-0)	TWA: 0.5 ppm	5 ppm		-
Naphthalene (91-20-3)	TWA: 10 ppm	TWA: 10 ppm TWA: 50 mg/m³ TWA: 50 mg/m³ TWA: 10 ppm TWA: 50 mg/m³ STEL: 15 ppm STEL: 75 mg/m³		Mexico: TWA 10 ppm Mexico: TWA 50 mg/m³ Mexico: STEL 15 ppm Mexico: STEL 75 mg/m³
Chemical name	British Columbia	Quebec	Ontario TWAEV	Alberta
2-Methylnaphthalene (91-57-6)	TWA: 0.5 ppm Skin	-	TWA: 0.5 ppm	-
			Skin	
Propylene glycol (57-55-6)	-	-	TWA: 10 mg/m³ aerosol only TWA: 50 ppm	-
			aerosol and vapor	
			TWA: 155 mg/m ³ aerosol and vapor	
1-Methylnaphthalene (90-12-0)	TWA: 0.5 ppm Skin	-	TWA: 0.5 ppm	-
			Skin	
Naphthalene (91-20-3)	TWA: 10 ppm STEL: 15 ppm Skin	TWA: 10 ppm TWA: 52 mg/m³ STEL: 15 ppm STEL: 79 mg/m³	TWA: 10 ppm STEL: 15 ppm Skin	TWA: 10 ppm TWA: 52 mg/m³ STEL: 15 ppm STEL: 79 mg/m³ Skin

Appropriate engineering controls

Engineering measures Apply technical measures to comply with the occupational exposure limits. Ensure

adequate ventilation, especially in confined areas. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the

recommended equipment.

Individual protection measures, such as personal protective equipment

Eye/Face Protection For dust, splash, mist or spray exposure, wear chemical protective goggles.

Skin and Body Protection Wear long-sleeved shirt, long pants, socks, shoes, chemical-resistant gloves and headgear.

Hand Protection Protective gloves

Respiratory Protection For dust, splash, mist or spray exposures wear a filtering mask.

Hygiene measures Clean water should be available for washing in case of eye or skin contamination. Wash

skin prior to eating, drinking, chewing gum or using tobacco. Shower or bathe at the end of working. Remove and wash contaminated clothing before re-use. Launder work clothing

king. Itemove and wash contaminated dolling before re-use. Ladi

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separately from regular household laundry.

General information If the product is used in mixtures, it is recommended that you contact the appropriate

protective equipment suppliers. These recommendations apply to the product as supplied

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance liquid **Physical State** Liquid

Color No information available Odor No information available **Odor threshold** No information available

4.01 at 23.3 degrees C as determined in a 1.08% suspension in water

Melting point/freezing point Not applicable

Boiling Point/Range No information available

> 100 °C Flash point

No information available **Evaporation Rate** Flammability (solid, gas) No information available

Flammability Limit in Air

Upper flammability limit: No information available Lower flammability limit: No information available No information available Vapor pressure Vapor density No information available

Density 9.24 lb/gal

Specific gravity No information available Water solubility No information available No information available Solubility in other solvents No information available Partition coefficient **Autoignition temperature** No information available No information available **Decomposition temperature**

Viscosity, kinematic 508.5 @ 25 °C

Viscosity, dynamic No information available **Explosive properties** No information available **Oxidizing properties** No information available Molecular weight No information available **Bulk density** No information available

10. STABILITY AND REACTIVITY

Reactivity Not applicable

Chemical Stability Stable under recommended storage conditions.

Possibility of Hazardous Reactions None under normal processing.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid Heat, flames and sparks

Incompatible materials None known.

Hazardous Decomposition Products Carbon oxides (COx), Nitrogen oxides (NOx), Sulfur oxides, Hydrogen chloride, Hydrogen

fluoride.

11. TOXICOLOGICAL INFORMATION

Product Information

LD50 Oral > 5000 mg/kg (rat) **LD50 Dermal** > 5000 mg/kg (rat) LC50 Inhalation > 2.02 mg/L (rat)

Serious eye damage/eye irritation

Slight irritation (rabbit). Skin corrosion/irritation Moderately irritating (rabbit).

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Sensitization Non-sensitizing

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic toxicityEffects are expected to be similar to those that are seen with acute toxicity. **Mutagenicity**Pyroxasulfone, Fluthiacet-methyl: Not genotoxic in laboratory studies,

Carcinogenicity Fluthlacet-methyl caused increases in benign tumors of pancreas in male rats at highest

dose, along with pancreatic and liver toxicity. Increase in liver tumors at two highest doses in male mouse, along with hepatotoxicity, that could both be secondary to porphyria. New

data indicates that there is no human risk.

Neurological effects Fluthiacet-methyl: Not neurotoxic.

Reproductive toxicity Fluthiacet-methyl: No toxicity to reproduction in animal studies.

Developmental toxicity Fluthiacet-methyl: A slight delay in fetal development in the rat, with no effects in the rabbit.

STOT - single exposure Not classified. STOT - repeated exposure Not classified.

Target organ effects Fluthiacet-methyl: Liver bone marrow spleen pancreas lymphatic system Hematopoietic

system uterus blood

Neurological effects Fluthiacet-methyl: Not neurotoxic.

Aspiration hazard No information available.

	Chemical name	ACGIH	IARC	NTP	OSHA
Γ	Naphthalene	A3	Group 2B	Reasonably Anticipated	Χ
	91-20-3		-		

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans

NTP (National Toxicology Program)

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

12. ECOLOGICAL INFORMATION

Ecotoxicity

43.31501% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Pyroxasulfone (447399-55-5)				
Active Ingredient(s)	Duration	Species	Value	Units
Pyroxasulfone	96 h LC50	Rainbow trout	>2.2	mg/L
	96 h LC50	Bluegill sunfish	>2.8	mg/L
	48 h EC50	Daphnia magna	>4.4	mg/L
	96 h LC50	Algae	0.00079	mg/L

Fluthiacet-methyl (117337-19-	6)			
Active Ingredient(s)	Duration	Species	Value	Units
Fluthiacet-methyl	72 h LC50	Algae	0.00251	mg/L
	96 h LC50	Fish	0.043	mg/L
	48 h EC50	Crustacea	2.3	mg/L
	21 d NOEC	Fish	0.0027	mg/L
	21 d NOEC	Crustacea	0.035	mg/L

Persistence and degradability Fluthiacet-methyl: Non-persistent. Does not readily hydrolyze.

Bioaccumulation Fluthiacet-methyl: The substance does not have a potential for bioconcentration.

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Mobility Fluthiacet-methyl: Slightly mobile. Not expected to reach groundwater.

13. DISPOSAL CONSIDERATIONS

Waste disposal methods Improper disposal of excess pesticide, spray mixture, or rinsate is prohibited. If these

wastes cannot be disposed of by use according to label instructions, contact appropriate

disposal authorities for guidance.

Contaminated Packaging Containers must be disposed of in accordance with local, state and federal regulations.

Refer to the product label for container disposal instructions. Do not reuse or refill this

container.

14. TRANSPORT INFORMATION

DOTThis material is not a hazardous material as defined by U.S. Department of Transportation

at 49 CFR Parts 100 through 185.

TDG

UN/ID no UN3082

Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s.

Hazard class 9
Packing Group

Marine Pollutant Pyroxasulfone, Fluthiacet-methyl.

Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (Pyroxasulfone,

Fluthiacet-methyl), 9, PG III

ICAO/IATA

UN/ID no UN3082

Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s.

Hazard class 9
Packing Group III

Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (Pyroxasulfone,

Fluthiacet-methyl), 9, PG III

IMDG/IMO

UN/ID no UN3082

Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s.

Hazard class 9
Packing Group III
EmS No. F-A. S-F

Marine Pollutant Pyroxasulfone, Fluthiacet-methyl

Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (Pyroxasulfone,

Fluthiacet-methyl), 9, PG III

15. REGULATORY INFORMATION

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical name	CAS-No	Weight %	SARA 313 - Threshold Values %
Naphthalene - 91-20-3	91-20-3	0.1-1	0.1

SARA 311/312 Hazard Categories

Acute health hazard Yes
Chronic health hazard Yes
Fire hazard No

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Sudden release of pressure hazard No Reactive Hazard No

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances	
Naphthalene 91-20-3	100 lb	Х	Χ	Х	

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Naphthalene	100 lb	
91-20-3	45.4 kg	

FIFRA Information

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:

CAUTION

ANTHEM may cause substantial, but temporary, eye injury.

This pesticide is toxic to fish, aquatic invertebrates, and to some plants at very low concentrations.

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical name	California Prop. 65
Naphthalene - 91-20-3	Carcinogen

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
2-Methylnaphthalene 91-57-6	X		
Propylene glycol 57-55-6	X		Х
1-Methylnaphthalene 90-12-0	X	X	Х
Naphthalene 91-20-3	X	Х	Х

International Inventories

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINC S (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
2-Methylnaphthalene 91-57-6	Х	Х	X	Х	Х		Х	Х
Naphtha (petroleum),	Х	Х	X	Х	Х	X	X	Х

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heavy aromatic 64742-94-5								
Propylene glycol 57-55-6	Х	X	X	Х	Х	X	Х	Х
1-Methylnaphthalene 90-12-0	Х	X	X	Х	Х		Х	Х
Naphthalene 91-20-3	Х	X	X	X	X	Х	Х	Х

Mexico - Grade

Moderate risk, Grade 2

Chemical name	Carcinogen Status	Mexico
Naphthalene		Mexico: TWA 10 ppm
		Mexico: TWA 50 mg/m ³
		Mexico: STEL 15 ppm
		Mexico: STEL 75 mg/m ³

WHMIS Hazard Class

D2A - Very toxic materials



16. OTHER INFORMATION

NFPA	Health Hazards 2	Flammability 1	Instability 0	Special Hazards -
HMIS	Health Hazards 2*	Flammability 1	Physical hazard 0	Personal Protection X

Revision date: 2020-11-20

Reason for revision: (M)SDS sections updated

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End of Safety Data Sheet