SAFETY DATA SHEET
FOCUS Herbicide

SDS # : 50001507
Revision date: 2021-12-10
Format: NA
Version 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name FOCUS Herbicide

Other means of identification

Product Code(s) 50001507

Legacy Product Code 7608, F9312-4, FO000997

Synonyms PYROXASULFONE:
3-[[[5-(difluoromethoxy)-1-methyl-3-(trifluoromethyl)-1H-pyrazol-4-yl]methyl]sulfonyl]-4,5-dihydro-5,5-dimethylisoxazole (CAS);
3-[5-(difluoromethoxy)-1-methyl-3-(trifluoromethyl)pyrazol-4-ylmethylsulfonyl]-4,5-dihydro-5,5-dimethyl-1,2-oxazole (IUPAC);

CARFENTRAZONE-ETHYL (FMC 116426): ethyl α,2-dichloro-5-[4-difluoromethyl-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl]-4-fluorobenzenepropanoate (CAS name); ethyl (RS)-2-chloro-3-[2-chloro-5-(4-difluoromethyl-4,5-dihydro-3-methyl-5- oxo-1H-1,2,4-triazol-1-yl) -4-fluorophenyl] propionate (IUPAC name)

Active Ingredient(s) Pyroxasulfone; Carfentrazone-ethyl

Chemical Family Sulfonylioxazoline; Triazolinones

PCP # 32292

Recommended use of the chemical and restrictions on use

Recommended Use: Herbicide

Restrictions on Use: Use as recommended by the label

Manufacturer Address

FMC of Canada Limited
6755 Mississauga Road, Suite 204
Mississauga, ON L5N 7Y2 Canada
Web: https://ag.fmc.com/ca/en
Phone (AgHotline): 1-833-FMC-PPAC (1-833-362-7722)
Email: SDS-Info@fmc.com

Emergency telephone number

Medical Emergencies:
1 800 / 331-3148 (U.S.A. & Canada)
1 651 / 632-6793 (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

OSHA Regulatory Status

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

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Carcinogenicity	Category 2
Reproductive toxicity	Category 1B

GHS Label elements, including precautionary statements

EMERGENCY OVERVIEW

Danger

Hazard Statements
H332 - Harmful if inhaled
H351 - Suspected of causing cancer
H360 - May damage fertility or the unborn child

Precautionary Statements - Prevention
P202 - Do not handle until all safety precautions have been read and understood
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P264 - Wash hands and face thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area
P281 - Use personal protective equipment as required
Precautionary Statements - Response
P308 + P313 - If exposed or concerned: Get medical advice/attention
P302 + P352 - IF ON SKIN: Wash with plenty of water and soap
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P391 - Collect spillage

Precautionary Statements - Storage
P405 - Store locked up

Precautionary Statements - Disposal
Dispose of contents/container according to label directions

Hazards not otherwise classified (HNOC)
No hazards not otherwise classified were identified.

Other Information
Very toxic to aquatic life with long lasting effects. May be harmful in contact with skin. Causes mild skin irritation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Family Sulfonylioxazoline; Triazolinones.

Chemical name	CAS-No	Weight %
Carfentrazone-ethyl	128639-02-1	4.43
Pyroxasulfone	447399-55-5	36.9

Propylene glycol	57-55-6	1-5
Naphtha (petroleum), heavy aromatic	64742-94-5	1-5
Naphthalene	91-20-3	<1
2-Methylnaphthalene	91-57-6	1-5

Synonyms are provided in Section 1.

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. 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.

Most important symptoms and effects, both acute and delayed
Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Indication of immediate medical attention and special treatment needed, if necessary
Treat symptomatically. Contains petroleum distillate. Vomiting may cause aspiration pneumonia.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Carbon dioxide (CO_2), Foam, Dry powder, Water spray. Avoid heavy hose streams.

Specific Hazards Arising from the Chemical
Hazardous Combustion Products
Carbon oxides (COx), Hydrogen chloride, Hydrogen fluoride, Nitrogen oxides (NOx).

Explosion data
Sensitivity to Mechanical Impact
No information available.
Sensitivity to Static Discharge
No information available.

Protective equipment and precautions for firefighters
Wear self-contained breathing apparatus and protective suit. Move containers from fire area if you can do it without risk.

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
Keep people and animals away from and upwind of spill/leak. Keep material out of lakes, streams, ponds, and sewer drains.

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. Avoid contact with skin, eyes and clothing. Avoid inhalation and prolonged and/or repeated skin and eye contact. Wash thoroughly after handling.

Storage Keep in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep out of reach of children and animals. Keep/store only in original container. Keep away from direct sunlight.

Incompatible products No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical name	ACGIH TLV	OSHA PEL	NIOSH	Mexico
Naphthalene (91-20-3)	TWA: 10 ppm	TWA: 10 ppm TWA: 50 mg/m³	IDLH: 250 ppm 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
2-Methylnaphthalene (91-57-6)	TWA: 0.5 ppm	-	-	-
Chemical name	**British Columbia**	**Quebec**	**Ontario TWAEV**	**Alberta**
Propylene glycol (57-55-6)	-	-	TWA: 10 mg/m³ aerosol only TWA: 50 ppm aerosol and vapor TWA: 155 mg/m³ aerosol and vapor	-
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
2-Methylnaphthalene (91-57-6)	TWA: 0.5 ppm Skin	-	TWA: 0.5 ppm Skin	-

Appropriate engineering controls

Engineering measures Apply technical measures to comply with the occupational exposure limits. 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, and shoes.

Hand Protection Use protective gloves made of chemical materials such as nitrile or neoprene. Wash the outside of gloves with soap and water before reuse. Check regularly for leaks.

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 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 suspension
Physical State	Liquid
Color	Off-white
Odor	No information available
Odor threshold	No information available
pH	5.83 @ 21.7°C
Melting point/freezing point	No information available
Boiling Point/Range	No information available
Flash point	> 100 °C / > 212 °F
Evaporation Rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	No information available
Vapor density	No information available
Density	10.11 lb/gal (1.21 g/mL) @ 21.6°C
Specific gravity	No information available
Water solubility	No information available
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity, kinematic	4220 cSt @ 20.5 °C; 4405 cSt @ 40.5 °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 No information available.
Hazardous Decomposition Products Carbon oxides (COx), Hydrogen chloride, Hydrogen fluoride, Nitrogen oxides (NOx).

11. TOXICOLOGICAL INFORMATION

Product Information

LD50 Oral	> 5000 mg/kg (rat)
LD50 Dermal	> 5000 mg/kg (rat)
LC50 Inhalation	> 2.18 mg/L 4 hr (rat)

Serious eye damage/eye irritation Mildly irritating (rabbit).
Skin corrosion/irritation Slightly irritating (rabbit).
Sensitization Non-sensitizing

Information on toxicological effects

Symptoms Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

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

Chronic toxicity Pyroxasulfone: Effects are expected to be similar to those that are seen with acute toxicity. Carfentrazone-ethyl: Long-term exposure caused hematotoxicity and deposit of porphyrin in the liver in animal studies.
Mutagenicity Pyroxasulfone, Carfentrazone-ethyl : Not genotoxic in laboratory studies.
Carcinogenicity Pyroxasulfone: Increased incidence of urinary bladder transitional papillomas was reported in male rat in two-year carcinogenicity study. Limited evidence of carcinogenic effects. Carfentrazone-ethyl : No evidence of carcinogenicity from animal studies.
Neurological effects Pyroxasulfone, Carfentrazone-ethyl : Not neurotoxic.
Reproductive toxicity Pyroxasulfone: Any signs of effect to fertility or embryo were not observed in rat one-generation and two generation reproductive studies at the dosage of which general toxicity to parental animals was observed. However, developmental toxicity was observed in offspring in a rat. May cause harm to the unborn child. Carfentrazone-ethyl : No toxicity to reproduction in animal studies.
Developmental toxicity Pyroxasulfone: Developmental toxicity was observed in rat offspring. May cause harm to unborn child. Carfentrazone-ethyl : Not teratogenic in animal studies.
STOT - single exposure Causes damage to organs. See listed target organs below.
STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure. See listed target organs below.
Target organ effects Pyroxasulfone: Liver, Kidney, bladder, cardiovascular system. Carfentrazone-ethyl : None known.
Neurological effects Pyroxasulfone, Carfentrazone-ethyl : Not neurotoxic.
Aspiration hazard This product presents an aspiration pneumonia hazard.

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

Legend:
ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
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

Carfentrazone-ethyl (128639-02-1)				
Active Ingredient(s)	Duration	Species	Value	Units
Carfentrazone-ethyl	72 h EC50	Algae	0.012	mg/L
	96 h LC50	Fish	1.6	mg/L
	48 h LC50	Daphnia	>9.8	mg/L
	96 h NOEC	Algae	1.0	µg/L
	21 d NOEC	Fish	0.0187	mg/L
	21 d NOEC	Crustacea	0.22	mg/L

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

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Propylene glycol 57-55-6	96 h EC50: = 19000 mg/L (Pseudokirchneriella subcapitata)	96 h LC50: 41 - 47 mL/L (Oncorhynchus mykiss) static 96 h LC50: = 51400 mg/L (Pimephales promelas) static 96 h LC50: = 51600 mg/L (Oncorhynchus mykiss) static 96 h LC50: = 710 mg/L (Pimephales promelas)	48 h EC50: > 1000 mg/L (Daphnia magna) Static 24 h EC50: > 10000 mg/L (Daphnia magna)
Naphtha (petroleum), heavy aromatic 64742-94-5	72 h EC50: = 2.5 mg/L (Skeletonema costatum)	96 h LC50: = 1740 mg/L (Lepomis macrochirus) static 96 h LC50: = 19 mg/L (Pimephales promelas) static 96 h LC50: = 2.34 mg/L (Oncorhynchus mykiss) 96 h LC50: = 41 mg/L (Pimephales promelas) 96 h LC50: = 45 mg/L (Pimephales promelas) flow-through	48 h EC50: = 0.95 mg/L (Daphnia magna)
Naphthalene 91-20-3	72 h EC50: = 0.4 mg/L (Skeletonema costatum)	96 h LC50: 0.91 - 2.82 mg/L (Oncorhynchus mykiss) static 96 h LC50: 5.74 - 6.44 mg/L (Pimephales promelas) flow-through 96 h LC50: = 1.6 mg/L (Oncorhynchus mykiss) flow-through 96 h LC50: = 1.99 mg/L (Pimephales promelas) static 96 h LC50: = 31.0265 mg/L (Lepomis macrochirus) static	48 h EC50: 1.09 - 3.4 mg/L (Daphnia magna) Static 48 h EC50: = 1.96 mg/L (Daphnia magna) Flow through 48 h LC50: = 2.16 mg/L (Daphnia magna)

Persistence and degradability Pyroxasulfone: Moderately persistent. Carfentrazone-ethyl : Non-persistent. Readily hydrolyzed. Not readily biodegradable.

Bioaccumulation Pyroxasulfone: The substance has a low potential to bioaccumulate in the environment. Carfentrazone-ethyl : The substance does not have a potential for bioconcentration.

Mobility Pyroxasulfone: Mobile. Carfentrazone-ethyl : Not relevant.

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

DOT This material is not a hazardous material as defined by U.S. Department of Transportation at 49 CFR Parts 100 through 185.

TDG Classification below is only applicable when shipped by vessel and is not applicable when shipped by road or rail only.

UN/ID no UN3082
Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s.
Hazard class 9
Packing Group III
Marine Pollutant Pyroxasulfone, Carfentrazone-ethyl .
Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (Pyroxasulfone,

Carfentrazone-ethyl), 9, III, Marine Pollutant

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, Carfentrazone-ethyl), 9, III, Marine Pollutant

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, Carfentrazone-ethyl
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Pyroxasulfone, Carfentrazone-ethyl), 9, III, Marine Pollutant

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	<1	0.1

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic health hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as 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
Formaldehyde 50-00-0	100 lb			X
Acetic Acid 64-19-7	5000 lb			X
Naphthalene 91-20-3	100 lb	X	X	X

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
Formaldehyde 50-00-0	100 lb 45.4 kg	100 lb
Acetic Acid 64-19-7	5000 lb 2270 kg	
Methyl ethyl ketone	5000 lb	

78-93-3	2270 kg	
Naphthalene 91-20-3	100 lb 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
Harmful if swallowed, inhaled or absorbed through skin.
This product is toxic to aquatic invertabrates. This product is highly toxic to algae and toxic to fish and aquatic organisms.

US State Regulations

California Proposition 65

This product does not contain any 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
Propylene glycol 57-55-6	X		X
Naphthalene 91-20-3	X	X	X
2-Methylnaphthalene 91-57-6	X		

International Inventories

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Carfentrazone-ethyl 128639-02-1					X			
Propylene glycol 57-55-6	X	X	X	X	X	X	X	X
Naphtha (petroleum), heavy aromatic 64742-94-5	X	X	X	X	X	X	X	X
Naphthalene 91-20-3	X	X	X	X	X	X	X	X
2-Methylnaphthalene 91-57-6	X	X	X	X	X		X	X

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

Chemical name	Mexico - Pollutant Release and Transfer Register - Reporting Emissions for Fabrication, Process or Use -Threshold Quantities	Pollutant Release and Transfer Register - Reporting Emissions - Threshold Quantities
Formaldehyde	100 2500 kg/yr	100 kg/yr

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

**Indicates a chronic health hazard.*

Revision date: 2021-12-10
Reason for revision: Initial Release

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End of Safety Data Sheet