



SAFETY DATA SHEET

Carfentrazone 21.3 EW

SDS # : 7232-1-A

Revision date: 2018-03-08

Format: AP

Version 1

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name Carfentrazone 21.3 EW

Product Code(s) 7232-1-A

Synonyms 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)

Formula code 7232-A

Active Ingredient(s) Carfentrazone-ethyl

Alternate Commercial Name Shark Rice Herbicide

Chemical Family Triazolinones

Recommended Use: Herbicide.

Manufacturer/Supplier

FMC Corporation
Agricultural Solutions
2929 Walnut Street
Philadelphia, PA 19104
General Information:
Phone: (215) 299-6000
E-Mail: msdsinfo@fmc.com

Emergency telephone

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

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

1 703 / 741-5970 (CHEMTREC - International)

1 703 / 527 3887 (CHEMTREC - Alternate)

Medical Emergencies:

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

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

Section 2: HAZARDS IDENTIFICATION

GHS - Classification

Acute toxicity - Oral	Category 5
Carcinogenicity	Category 2
Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1

Label Elements

**Signal Word****WARNING****Hazard Statements**

H303 - May be harmful if swallowed

H351 - Suspected of causing cancer

H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements - Prevention

P201 - Obtain special instructions before use

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

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P273 - Avoid release to the environment

Precautionary Statements - Response

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

P391 - Collect spillage

Precautionary Statements - Storage

P405 - Store locked up

Precautionary Statements - Disposal

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

Other Information

May be fatal if swallowed and enters airways

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS**Synonyms** 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)

Chemical name	CAS-No	Weight %
2-Methylnaphthalene	91-57-6	5-10
Carfentrazone-ethyl	128639-02-1	24.9
Naphtha (petroleum), heavy aromatic	64742-94-5	5-10
1-Methylnaphthalene	90-12-0	5-10
Propylene glycol	57-55-6	1-5
Naphthalene	91-20-3	0.1-1

Section 4: FIRST AID MEASURES**Inhalation**

Move person to fresh air. If person is not breathing, contact emergency medical services, then give artificial respiration, preferably mouth-to-mouth if possible. 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.

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.

Ingestion	Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.
Most important symptoms and effects, both acute and delayed	Asthma-like and/or skin allergy-like symptoms.
Protection of first-aiders	Use personal protective equipment. See Section 8 for more detail.
Indication of immediate medical attention and special treatment needed, if necessary	Contains petroleum distillate. Vomiting may cause aspiration pneumonia.

Section 5: FIRE FIGHTING MEASURES

Suitable Extinguishing Media	Carbon dioxide (CO ₂), Foam, Dry powder, Water spray.
Unsuitable extinguishing media	No information available
Specific Hazards Arising from the Chemical	None known.
Protective equipment and precautions for firefighters	As in any fire, wear self-contained breathing apparatus and full protective gear.

Section 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 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.

Section 7: HANDLING AND STORAGE

Handling	Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.
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.
Materials to avoid	None known

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

Component	China	Japan	Korea	Australia	Taiwan
Propylene glycol 57-55-6 (1-5)				TWA 150 ppm TWA 474 mg/m ³ TWA 10 mg/m ³	
Naphthalene	TWA: 50 mg/m ³	C2B	S*	STEL 15 ppm	STEL 15 ppm

91-20-3 (0.1-1)	STEL: 75 mg/m ³ S* C1 C3	ISHL/ACL: 10 ppm	STEL: 15 ppm TWA: 10 ppm	STEL 79 mg/m ³ TWA 10 ppm TWA 52 mg/m ³	STEL 78 mg/m ³
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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.

Personal protective equipment**Respiratory Protection**

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

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.

Eye/Face Protection

For dust, splash, mist or spray exposure, wear chemical protective goggles.

Skin and Body Protection

Minimize skin contamination by following good industrial hygiene practices.

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.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Liquid Off-white
Odor	Solvent
Color	Off-white
Odor threshold	No information available
pH	4.29
Melting point/freezing point	No information available
Boiling Point/Range	No information available
Flash point	104 °C / 219 °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
Specific gravity	No information available
Water solubility	No information available
Solubility(ies)	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity, kinematic	No information available
Viscosity, dynamic	1000-3000 cps (Brookfield RVT, spindle 3, 5 rpm) No information available
Density	8.80 lb/gal
Bulk density	No information available

Section 10: STABILITY AND REACTIVITY

Reactivity	Not applicable
Stability	Stable under recommended storage conditions
Hazardous reactions	None under normal processing.
Hazardous polymerization	Hazardous polymerization does not occur.

Conditions to Avoid Heat, flames and sparks.

Incompatible products None known.

Hazardous Decomposition Products Carbon oxides (COx), hydrogen chloride, hydrogen fluoride, nitrogen oxides (NOx).

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity

Numerical measures of toxicity - Product Information

LD50 Oral	Similar formulation: 4077 mg/kg (rat)
LD50 Dermal	Similar formulation: > 4000 mg/kg (rat)
LC50 Inhalation	Similar formulation: > 6.31 mg/L (4-hr) (rat)
Skin corrosion/irritation	Mildly irritating (rabbit).
Serious eye damage/eye irritation	Mildly irritating.
Sensitization	Based on a similar formulation, this product is not expected to produce skin sensitization.

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

Mutagenicity	Carfentrazone-ethyl : Not genotoxic in animal studies.
Carcinogenicity	Carfentrazone-ethyl : Did not show carcinogenic effects in animal experiments. Not recognized as carcinogenic by Research Agencies (IARC, NTP, OSHA, ACGIH). There was no evidence of carcinogenic activity of naphthalene in male mice, but there was some evidence of carcinogenic activity in female mice and clear evidence of carcinogenic activity in male and female rats in 2-year inhalation studies conducted by the National Toxicology Program (NTP).
Reproductive toxicity	Carfentrazone-ethyl : No toxicity to reproduction in animal studies.
Developmental toxicity	Carfentrazone-ethyl : Not teratogenic in animal studies.
STOT - single exposure	Not classified.
STOT - repeated exposure	Not classified.
Chronic toxicity	Effects are expected to be similar to those that are seen with acute toxicity. Chronic exposure to aromatic hydrocarbons may cause headaches, dizziness, loss of sensations or feelings (such as numbness), and liver and kidney damage. Naphthalene causes cataracts in humans, rats, rabbits and mice. It has been classified as potential carcinogen based on animal data.
Target organ effects	Carfentrazone-ethyl : Red blood cell reduction can occur due to hemoglobin biosynthesis inhibition. Accumulation of precursors of hemoglobin may lead to secondary toxicity to liver and other organs.
Neurological effects	Carfentrazone-ethyl : Not neurotoxic.
Symptoms	Signs of toxicity in laboratory animals included mydriasis, cyanosis, ataxia, dyspnea, lacrimation, and diarrhea.
Aspiration hazard	Not classified based on viscosity data.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Very toxic to aquatic life with long lasting effects.

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

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

Bioaccumulation Carfentrazone-ethyl : The substance does not have a potential for bioconcentration.

Mobility Carfentrazone-ethyl : Not relevant.

Other Adverse Effects No information available.

Section 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 Dispose of in accordance with local regulations.

Section 14: TRANSPORT INFORMATION

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 Carfentrazone-ethyl
 Description UN3082, Environmentally Hazardous Substance, Liquid, n.o.s. (Carfentrazone-ethyl), 9, PG 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
 Special Provisions Marine pollutant
 Marine Pollutant Carfentrazone-ethyl
 Description UN3082, Environmentally Hazardous Substance, Liquid, n.o.s. (Carfentrazone-ethyl), 9, PG III, Marine Pollutant

Section 15: REGULATORY INFORMATION

International Inventories

A food, food additive, drug, cosmetic, or device, when manufactured, processed or distributed in commerce for use as a food, food additive, drug, cosmetic, or device may not be subject to local notification requirements. Check local regulations for more information.

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Carfentrazone-ethyl					X			

128639-02-1								
Naphtha (petroleum), heavy aromatic 64742-94-5	X	X	X		X	X	X	X
1-Methylnaphthalene 90-12-0	X	X	X	X	X		X	X
Propylene glycol 57-55-6	X	X	X	X	X	X	X	X
Naphthalene 91-20-3	X	X	X	X	X	X	X	X

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

Section 16: OTHER INFORMATION

Prepared By:

FMC Corporation

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Revision note

Format Change.

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End of Safety Data Sheet