



SAFETY DATA SHEET

Hammer 400EC

SDS # : FO003476-A
Revision date: 2021-10-26
Format: AP
Version 2

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name Hammer 400EC

Product Code(s) FO003476-A

Synonyms CARFENTRAZONE-ETHYL:
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)

Recommended Use: Herbicide

Restrictions on Use: See section 16 for more information.

Manufacturer/Supplier
FMC Corporation
2929 Walnut Street, Philadelphia,
Pennsylvania 19104
USA
General Information:
Phone: (215) 299-6000
E-Mail: msdsinfo@fmc.com

Emergency telephone Medical Emergencies: 0800 140 1447
For leak, fire, spill or accidents: 001-803-017-9114 (CHEMTREC Indonesia)
1 703 741-5970 (CHEMTREC – International)

Section 2: HAZARDS IDENTIFICATION

GHS Classification

Aspiration toxicity	Category 1
Acute aquatic toxicity	Category 1
Flammable liquids	Category 4

Label Elements



Signal Word:

Danger

Hazard Statements

H304 - May be fatal if swallowed and enters airways
 H400 - Very toxic to aquatic life
 H227 - Combustible liquid

Precautionary Statements - Prevention

P273 - Avoid release to the environment
 P210 - Keep away from heat/sparks/open flames/hot surfaces. No smoking
 P280 - Wear protective gloves/protective clothing/eye protection/face protection

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor
 P331 - Do NOT induce vomiting
 P370 + P378 - In case of fire: Use CO₂, dry chemical, or foam for extinction
 P391 - Collect spillage

Precautionary Statements - Storage

P405 - Store locked up
 P403 + P235 - Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

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

Other Information

No additional information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms CARFENTRAZONE-ETHYL:

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 %
Carfentrazone-ethyl	128639-02-1	30 - 75
Naphtha (petroleum), heavy aromatic	64742-94-5	30 - 75
Benzenesulfonic acid, C10-16 alkyl derivs., Calcium salts	68584-23-6	1 - 15
Isobutyl alcohol	78-83-1	1 - 15
Oxirane, methyl-, polymer with oxirane, monobutyl ester	9038-95-3	1 - 15

Section 4: FIRST AID MEASURES

Inhalation

Move 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.

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

Call a physician or poison control center immediately. 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

Central nervous system effects, Gastrointestinal effects.

Use personal protective equipment. See Section 8 for more detail.

Indication of immediate medical attention and special treatment needed, if necessary

Treatment is symptomatic and supportive.

Section 5: FIRE FIGHTING MEASURES

Suitable Extinguishing Media	Foam, Dry chemical or CO2. Soft stream or water fog only if necessary. Contain all runoff.
Unsuitable extinguishing media	No information available
Specific Hazards Arising from the Chemical	Combustible material.
Hazardous Combustion Products	Toxic fumes may be produced.
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. Wear suitable protective clothing, gloves and eye/face protection.
Other	For further clean-up instructions, call FMC Emergency Hotline number listed in Section 1 "Product and Company Identification" above.
Environmental Precautions	Prevent entry into waterways, sewers, basements or confined areas. Keep people and animals away from and upwind of spill/leak.
Methods for Containment	Dike to prevent runoff. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Vacuum or shovel waste into a drum and label contents for disposal.
Methods for cleaning up	Clean and neutralize spill area, tools and equipment by washing with water and soap. Absorb, as above, any excess liquid and add to the drums of waste already collected. Waste must be classified and labeled prior to recycling or disposal.

Section 7: HANDLING AND STORAGE

Handling	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin and eyes. Do not breathe vapors or spray mist. Use personal protective equipment. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.
Storage	Keep/store only in original container. Keep in a dry, cool and well-ventilated place. Keep away from direct sunlight. Keep out of reach of children and animals.
Materials to avoid	Strong oxidizing agents.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

Component	China	Japan	Korea	Australia	Taiwan
Isobutyl alcohol 78-83-1 (1 - 15)		OEL: 50 ppm OEL: 150 mg/m ³ ISHL/ACL: 50 ppm	TWA: 50 ppm	TWA 50 ppm TWA 152 mg/m ³	STEL 190 mg/m ³ STEL 75 ppm

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
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breathing and wear the recommended equipment.

Personal protective equipment

Respiratory Protection	For dust, splash, mist or spray exposures wear a elastomeric full-face or half mask respirator with appropriate cartridges and/or filters which is approved for pesticides (U.S. NIOSH/MSHA, EU CEN or comparable certification organization).
Hand Protection	Protective gloves.
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.
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	Brown Liquid
Odor	No information available
Color	Brown
Odor threshold	No information available
pH	2.5- 6.5
Melting point/freezing point	No information available
Boiling Point/Range	No information available
Flash point	> 62 °C
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	1.1 g/mL
Water solubility	Emulsifies
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	No information available
Molecular weight	No data available
Relative density	No information available
Bulk density	No information available
K_{st}	>0 bar m/s

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 Strong oxidizing agents.

Hazardous Decomposition Products Thermal decomposition can lead to release of irritating gases and vapors. Carbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen oxides (NO_x), Hydrogen chloride, Hydrogen fluoride.

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity

Numerical measures of toxicity - Product Information

LD50 Oral > 3000 mg/kg (rat)
LD50 Dermal > 4000 mg/kg (rabbit)
LC50 Inhalation (dust) > 10.4 mg/L 4 hr

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation (vapor)
Carfentrazone-ethyl (128639-02-1)	= 5143 mg/kg (rat)	> 4000 mg/kg (rat)	> 5 mg/L 4h (rat)
Naphtha (petroleum), heavy aromatic (64742-94-5)	300-2000 mg/kg	> 2 mL/kg (Nyúl)	>5,2 mg/L
Isobutyl alcohol (78-83-1)	2500 mg/kg (Rat)	2500 mg/kg (Rat)	> 6.5 mg/L (Rat) 4 h
Oxirane, methyl-, polymer with oxirane, monobutyl ester (9038-95-3)	2500 g/kg (Rat)	= 14100 µL/kg (Rabbit) > 20 mL/kg (Rabbit)	= 147 mg/m ³ (Rat) 4 h

Skin corrosion/irritation Mildly irritating.
Serious eye damage/eye irritation Mildly irritating.
Sensitization Carfentrazone-ethyl : Non-sensitizer.

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

Mutagenicity Carfentrazone-ethyl : Not genotoxic in laboratory studies.
Carcinogenicity Carfentrazone-ethyl : No evidence of carcinogenicity from animal studies.
Reproductive toxicity Carfentrazone-ethyl : No toxicity to reproduction in animal studies.
Developmental toxicity Carfentrazone-ethyl : Not teratogenic in animal studies.
Teratogenicity Not teratogenic in animal studies.
STOT - single exposure Not classified.
STOT - repeated exposure Not classified.
Chronic toxicity Long-term exposure caused neurotoxicity (body tremors, decreased motor activity), decreased body weight and increased liver and spleen weight.
Neurological effects Carfentrazone-ethyl : Not neurotoxic.
Aspiration hazard No information available.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

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

Very toxic to aquatic life.

Carfentrazone-ethyl (128639-02-1)				
Active Ingredient(s)	Duration	Species	Value	Units
	72 h EC50	Algae	0.012	mg/L
	96 h LC50	Rainbow trout	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
	LC50	Eisenia fetida	> 820	mg/kg
	LD50 Oral	Bee	> 200	µg/bee
	LD50 contact	Bee	> 200	µg/bee
	LD50 acute oral	Northern bobwhite	>2250	mg/kg
	LD50 Oral	Bobwhite quail	>2000	mg/kg

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 containers and packages	Containers must be disposed of in accordance with local, state and federal regulations. Refer to the product label for container disposal instructions.

Section 14: TRANSPORT INFORMATION

IMDG/IMO

UN/ID no	UN3082
Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.(Carfentrazone-ethyl)
Hazard class	9
Packing Group	III
EmS No.	F-A, S-F
Environmental Hazards	Yes

ICAO/IATA

UN/ID no	UN3082
Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.(Carfentrazone-ethyl)
Hazard class	9
Packing Group	III
Environmental Hazards	Yes

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 128639-02-1					X			
Naphtha (petroleum), heavy aromatic 64742-94-5	X	X	X		X	X	X	X
Benzenesulfonic acid, C10-16 alkyl derivs., Calcium salts 68584-23-6	X	X	X		X	X	X	X
Isobutyl alcohol 78-83-1	X	X	X	X	X	X	X	X
Oxirane, methyl-, polymer with oxirane, monobutyl ester 9038-95-3	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: SDS sections updated.

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End of Safety Data Sheet