

# SAFETY DATA SHEET

## Affinity Force EW

SDS # : 7232-A  
Revision date: 2018-03-07  
Format: NA  
Version 1.03



### 1. PRODUCT AND COMPANY IDENTIFICATION

#### Product Identifier

**Product Name** Affinity Force EW

#### Other means of identification

**Product Code(s)** 7232-A

**Synonyms** CARFENTRAZONE-ETHYL (FMC 116426): ethyl  $\alpha$ ,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)** Carfentrazone-ethyl

**Chemical Family** Triazolinones

**Alternate Commercial Name** Hammer Force, Shark Rice Herbicide

#### Recommended use of the chemical and restrictions on use

**Recommended Use:** Herbicide

**Restrictions on Use:** Use as recommended by the label

#### Supplier Address

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

#### Emergency telephone number

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)

### 2. HAZARDS IDENTIFICATION

#### Classification

#### **OSHA Regulatory Status**

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

Carcinogenicity	Category 2
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**GHS Label elements, including precautionary statements****EMERGENCY OVERVIEW****Warning****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

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

**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. May be harmful in contact with skin. May be harmful if swallowed.

**3. COMPOSITION/INFORMATION ON INGREDIENTS****Chemical Family** Triazolinones.

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

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.

<b>Inhalation</b>	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.
<b>Ingestion</b>	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 induce vomiting or give anything by mouth to an unconscious person
<b>Most important symptoms and effects, both acute and delayed</b>	None known.
<b>Indication of immediate medical attention and special treatment needed, if necessary</b>	Treatment is symptomatic and supportive. Contains petroleum distillate. Vomiting may cause aspiration pneumonia.

## 5. FIRE-FIGHTING MEASURES

<b>Suitable Extinguishing Media</b>	Carbon dioxide (CO <sub>2</sub> ), Foam, Dry powder, Water spray.
<b>Specific Hazards Arising from the Chemical</b>	None known
<b>Explosion data</b>	
<b>Sensitivity to Mechanical Impact</b>	No information available.
<b>Sensitivity to Static Discharge</b>	No information available.
<b>Protective equipment and precautions for firefighters</b>	As in any fire, wear self-contained breathing apparatus and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	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.
<b>Other</b>	For further clean-up instructions, call FMC Emergency Hotline number listed in Section 1 "Product and Company Identification" above.
<b>Environmental Precautions</b>	Keep people and animals away from and upwind of spill/leak. Keep material out of lakes, streams, ponds, and sewer drains. Keep out of waterways.
<b>Methods for Containment</b>	Dike to prevent runoff. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.
<b>Methods for cleaning up</b>	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.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.
<b>Storage</b>	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.
<b>Incompatible products</b>	None known

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

Chemical name	ACGIH TLV	OSHA PEL	NIOSH	Mexico
1-Methylnaphthalene (90-12-0)	TWA: 0.5 ppm	-	-	-
Naphthalene (91-20-3)	TWA: 10 ppm	TWA: 10 ppm TWA: 50 mg/m <sup>3</sup>	IDLH: 250 ppm TWA: 10 ppm TWA: 50 mg/m <sup>3</sup> STEL: 15 ppm STEL: 75 mg/m <sup>3</sup>	Mexico: TWA 10 ppm Mexico: TWA 50 mg/m <sup>3</sup> Mexico: STEL 15 ppm Mexico: STEL 75 mg/m <sup>3</sup>
Chemical name	British Columbia	Quebec	Ontario TWA/EV	Alberta
1-Methylnaphthalene (90-12-0)	TWA: 0.5 ppm Skin	-	TWA: 0.5 ppm  Skin	-
Propylene glycol (57-55-6)	-	-	TWA: 10 mg/m <sup>3</sup> aerosol only  TWA: 50 ppm aerosol and vapor  TWA: 155 mg/m <sup>3</sup> aerosol and vapor	-
Naphthalene (91-20-3)	TWA: 10 ppm STEL: 15 ppm Skin	TWA: 10 ppm TWA: 52 mg/m <sup>3</sup> STEL: 15 ppm STEL: 79 mg/m <sup>3</sup>	TWA: 10 ppm  STEL: 15 ppm Skin	TWA: 10 ppm TWA: 52 mg/m <sup>3</sup> STEL: 15 ppm STEL: 79 mg/m <sup>3</sup> 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 Off-white
Physical State	Liquid
Color	Off-white
Odor	Solvent
Odor threshold	No information available
pH	4.29
Melting point/freezing point	Not applicable

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
Density	8.80 lb/gal
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	No information available
Viscosity, dynamic	1000-3000 cps (Brookfield RVT, spindle 3, 5 rpm)
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), hydrogen chloride, hydrogen fluoride, nitrogen oxides (NOx).

## 11. TOXICOLOGICAL INFORMATION

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

### Information on toxicological effects

Symptoms	Signs of toxicity in laboratory animals included mydriasis, cyanosis, ataxia, dyspnea, lacrimation, and diarrhea.
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### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic toxicity	Long-term exposure caused neurotoxicity (body tremors, decreased motor activity), decreased body weight and increased liver and spleen weight
Mutagenicity	Carfentrazone-ethyl : Not genotoxic in laboratory studies.
Carcinogenicity	Carfentrazone-ethyl : No evidence of carcinogenicity from animal studies.
Neurological effects	Carfentrazone-ethyl : Not neurotoxic.
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**  
**Neurological effects**  
**Aspiration hazard**

Not classified.  
Carfentrazone-ethyl : Not neurotoxic.  
Not classified based on viscosity data.

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  
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**

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.

## 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. Proper personal protective equipment, as described in Sections 7 and 8, must be worn while handling materials for waste disposal.

**Contaminated Packaging**

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

## 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**

UN/ID no  
Proper Shipping Name  
Hazard class  
Packing Group  
Marine Pollutant  
Description

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

UN3082  
Environmentally hazardous substance, liquid, n.o.s.  
9  
III  
Carfentrazone-ethyl , Naphthalene.  
UN3082, Environmentally hazardous substance, liquid, n.o.s. (carfentrazone-ethyl,

naphthalene), 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  
Special Provisions Marine pollutant  
Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (carfentrazone-ethyl, naphthalene), 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 Carfentrazone-ethyl , Naphthalene  
Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (carfentrazone-ethyl, naphthalene), 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	0.1-1	0.1

##### SARA 311/312 Hazard Categories

Acute health hazard No  
Chronic health hazard Yes  
Fire hazard No  
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	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
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 the skin. Causes eye and skin irritation.  
This product is highly toxic to algae and toxic to fish and aquatic organisms.

**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
1-Methylnaphthalene 90-12-0	X	X	X
Propylene glycol 57-55-6	X		X
Naphthalene 91-20-3	X	X	X

**International Inventories**

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINC S (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
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

**Mexico - Grade**

Serious risk, Grade 3

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

**WHMIS Statement**

This product has been classified in accordance with the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

**WHMIS Hazard Class**

D2A - Very toxic materials



**16. OTHER INFORMATION**

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

\*Indicates a chronic health hazard.

**NFPA/HMIS Ratings Legend**

Severe = 4; Serious = 3; Moderate = 2; Slight = 1; Minimal = 0

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**End of Safety Data Sheet**