



SAFETY DATA SHEET

Prevail 100EC

SDS # : FO001033-A
Revision date: 2018-08-08
Format: AP
Version 1.01

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name Prevail 100EC

Product Code(s) FO001033-A

Synonyms CYPERMETHRIN (FMC 30980); (RS)- α -cyano-3-phenoxybenzyl (1RS,3RS;1RS,3SR)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate (IUPAC name); cyano(3-phenoxyphenyl)methyl 3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate (CAS name)

Active Ingredient(s) Cypermethrin

Chemical Family Pyrethroid Pesticide

Recommended Use: Insecticide.

Restrictions on Use: See section 16 for more information.

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

Medical Emergencies:
1 800 / 331-3148 (ProPharma Group - U.S.A. & Canada)
1 651 / 632-6793 (ProPharma Group - All Other Countries - Collect)

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)

Section 2: HAZARDS IDENTIFICATION

GHS - Classification

Aspiration toxicity	Category 1
Acute toxicity - Oral	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 3
Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1
Carcinogenicity	Category 2
STOT - single exposure	Category 3
Specific target organ toxicity (repeated exposure)	Category 2
Acute aquatic toxicity	Category 1

Chronic aquatic toxicity	Category 1
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Flammable liquids	Category 3
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Label Elements**Signal Word****Danger****Hazard Statements**

H301 - Toxic if swallowed
H304 - May be fatal if swallowed and enters airways
H317 - May cause an allergic skin reaction
H332 - Harmful if inhaled
H351 - Suspected of causing cancer
H373 - May cause damage to organs through prolonged or repeated exposure
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness
H319 - Causes serious eye irritation
H313 - May be harmful in contact with skin
H410 - Very toxic to aquatic life with long lasting effects
H226 - Flammable liquid and vapor

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
P264 - Wash face, hands and any exposed skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area
P272 - Contaminated work clothing should not be allowed out of the workplace
P280 - Wear protective gloves
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P273 - Avoid release to the environment
P210 - Keep away from heat/sparks/open flames/hot surfaces. No smoking
P233 - Keep container tightly closed
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical/ventilating/lighting/?/equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P235 - Keep cool

Precautionary Statements - Response

P308 + P313 - If exposed or concerned: Get medical advice/attention
P321 - Specific treatment (see supplemental first aid instructions on this label)
P312 - Call a POISON CENTER or doctor if you feel unwell
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention

P363 - Wash contaminated clothing before reuse
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P310 - Immediately call a POISON CENTER or doctor
 P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor
 P331 - Do NOT induce vomiting
 P330 - Rinse mouth
 In case of fire: Use CO₂, dry chemical, or foam for extinction
 P391 - Collect spillage

Precautionary Statements - Storage

P405 - Store locked up
 P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

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

Other Information

None known

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms CYPERMETHRIN (FMC 30980); (RS)- α -cyano-3-phenoxybenzyl (1RS,3RS;1RS,3SR)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate (IUPAC name); cyano(3-phenoxyphenyl)methyl 3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate (CAS name)

Chemical name	CAS-No	Weight %
Cypermethrin	52315-07-8	11
Naphtha (petroleum), heavy aromatic	64742-94-5	75-85
Calcium dodecylbenzene sulfonate	26264-06-2	1-5
Naphthalene	91-20-3	<8
1,2,4-Trimethylbenzene	95-63-6	<2
Isobutyl alcohol	78-83-1	1-5

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	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek immediate medical attention/advice. Call a poison control center or doctor for further treatment advice.
Ingestion	Do NOT induce vomiting. Do not give any liquid to the person. Never give anything by mouth to an unconscious person. Immediate medical attention is required.
Most important symptoms and effects, both acute and delayed	Causes serious eye damage.
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	Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

Flammable properties	Moderately combustible. The product may form flammable mixtures with air when heated above the flash point.
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	Keep product and empty container away from heat and sources of ignition.
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 protective gloves/clothing 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 material out of lakes, streams, ponds, and sewer drains. Keep people and animals away from and upwind of spill/leak.
Methods for Containment	Dike to confine spill and absorb with non-combustible absorbent such as clay, sand or soil. Vacuum, shovel or pump waste into a drum and label contents for disposal.
Methods for cleaning up	Clean and neutralize spill area, tools and equipment for a minimum contact of one hour with vinegar-alcohol solution, then by bleach soap and water. 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	Strong oxidizing agents, Strong acids, Strong bases.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

Component	China	Japan	Korea	Australia	Taiwan
Naphthalene 91-20-3 (<8)	TWA: 50 mg/m ³ STEL: 75 mg/m ³ S* C1 C3	C2B ISHL/ACL: 10 ppm	S* STEL: 15 ppm TWA: 10 ppm	STEL 15 ppm STEL 79 mg/m ³ TWA 10 ppm TWA 52 mg/m ³	STEL 15 ppm STEL 78 mg/m ³
1,2,4-Trimethylbenzene 95-63-6 (<2)		OEL: 25 ppm OEL: 120 mg/m ³			

Engineering measures	Provide mechanical local exhaust ventilation to prevent release of mist into the work area. If release is expected, use respiratory protection. Ventilate all transport vehicles prior to unloading.
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Personal protective equipment

Respiratory Protection	The product does not automatically present an airborne exposure concern during normal handling. In the event of an accidental discharge of the material which produces a heavy
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vapour or mist, workers should put on officially approved respiratory protection equipment with a universal filter type including particle filter.

Hand Protection	Wear chemical protective gloves made of materials such as nitrile or neoprene.
Eye/Face Protection	For exposure to mists or sprays, wear safety goggles or face shield for chemical agents.
Skin and Body Protection	Minimize skin contamination by following good industrial hygiene practices. Wear suitable protective clothing. Protective shoes or boots.
Hygiene measures	Clean water should be available for washing in case of eye or skin contamination. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash skin prior to eating, drinking, chewing gum or using tobacco. Shower or bathe at the end of working. Launder work clothing separately from regular household laundry.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Amber Liquid
Odor	Aromatic Solvent
Color	Amber
Odor threshold	No information available
pH	No information available
Melting point/freezing point	No information available
Boiling Point/Range	No information available
Flash point	63 °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	0.915
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
Density	No information available
Bulk density	7.59

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, Strong acids, Strong bases.
Hazardous Decomposition Products	May emit toxic fumes under fire conditions. Carbon monoxide (CO), Carbon dioxide (CO ₂), hydrogen cyanide, Chlorine, Hydrogen chloride.

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity**Numerical measures of toxicity - Product Information**

LD50 Oral	137 mg/kg (rat)
LD50 Dermal	> 2,000 mg/kg (rabbit)
LC50 Inhalation	2.18 mg/L 4 hr (rat) (rat)
Skin corrosion/irritation	Mildly irritating.
Serious eye damage/eye irritation	Moderately irritating (rabbit).
Sensitization	May cause sensitization by skin contact.

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

Mutagenicity	Cypermethrin: Not genotoxic in laboratory studies.
Carcinogenicity	Cypermethrin caused an increase in benign lung tumors in mice, but not in rats. EPA has classified cypermethrin as a possible human carcinogen based on this information, but does not regulate based on its low cancer risk.
Reproductive toxicity	Cypermethrin: No toxicity to reproduction in animal studies.
Developmental toxicity	Cypermethrin: Not teratogenic in animal studies.
STOT - single exposure	May cause respiratory irritation. See listed target organs below.
STOT - repeated exposure	May cause damage to organs through prolonged or repeated exposure. See listed target organs below.
Chronic toxicity	Cypermethrin: Long-term exposure caused neurotoxicity (body tremors, decreased motor activity), decreased body weight and increased liver and spleen weight.
Target organ effects	Cypermethrin: Central Nervous System.
Neurological effects	Cypermethrin: Cause clinical signs of neurotoxicity (body tremors, decreased motor activity and impaired gait) following acute, subchronic or chronic exposure.
Symptoms	Signs of toxicity in laboratory animals included hypertonicity, ataxia, lethargy, convulsions, gasping, salivation, dyspnea, and alopecia. Large doses of cypermethrin ingested by laboratory animals produced signs of toxicity including loss of motor control, tremors, decreased activity, urinary incontinence, incoordination, increased sensitivity to sound and convulsions.
Aspiration hazard	Potential for aspiration if swallowed. May be fatal if swallowed and enters airways.

Chemical name	China	IARC
Naphthalene		Group 2B

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.

Cypermethrin (52315-07-8)				
Active Ingredient(s)	Duration	Species	Value	Units
Cypermethrin	48 h EC50	Crustacea	0.3	µg/L
	96 h LC50	Fish	2.8	µg/L
	72 h EC50	Algae	> 0.1	mg/L
	21 d NOEC	Crustacea	0.04	µg/L
	21 d NOEC	Fish	0.03	µg/L
	96 h NOEC	Algae	1.3	mg/L

Persistence and degradability Cypermethrin: Moderately persistent. Does not readily hydrolyze. Not readily

biodegradable.

Bioaccumulation Cypermethrin: The substance has a potential for bioconcentration.

Mobility Cypermethrin: Immobile. Not expected to reach groundwater.

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. 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.

Section 14: TRANSPORT INFORMATION

IMDG/IMO

UN/ID no UN3352
Proper Shipping Name Pyrethroid pesticide, liquid, toxic
Hazard class 6.1
Packing Group III
EmS No. F-A, S-A
Marine Pollutant Cypermethrin

ICAO/IATA

UN/ID no UN3352
Proper Shipping Name Pyrethroid pesticide, liquid, toxic
Hazard class 6.1
Packing Group III
Marine Pollutant Cypermethrin

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)
Cypermethrin 52315-07-8			X		X	X	X	X
Naphtha (petroleum), heavy aromatic 64742-94-5	X	X	X		X	X	X	X
Naphthalene 91-20-3	X	X	X	X	X	X	X	X
1,2,4-Trimethylbenzene 95-63-6	X	X	X	X	X	X	X	X

DSL/NDSL - 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

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Revision date: 2018-08-08

Revision note (M)SDS sections updated.

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End of Safety Data Sheet