



**SAFETY DATA SHEET**  
**DOMINEX® 100 EC INSECTICIDE**

**SDS # :** 6271-A  
**Revision date:** 2018-04-05  
**Format:** AP  
**Version** 1

**Section 1: PRODUCT AND COMPANY IDENTIFICATION**

**Product Name** DOMINEX® 100 EC INSECTICIDE

**Product Code(s)** 6271-A

**Synonyms** FMC 65318: A racemate comprising (S)- $\alpha$ -cyano-3-phenoxybenzyl (1R,3R)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate and (R)- $\alpha$ -cyano-3-phenoxybenzyl (1S,3S)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate: [1 $\alpha$ (S\*),3 $\alpha$ ]( $\pm$ )-cyano(3-phenoxyphenyl)methyl 3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate

**Formula code** 6271-A

**Active Ingredient(s)** Alpha-cypermethrin

**Alternate Commercial Name** BESTOX® 100 EC INSECTICIDE

**Chemical Family** Pyrethroid Pesticide

**Recommended Use:** Insecticide.

**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 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 2
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
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
Flammable liquids	Category 3

**Label Elements****Signal Word****Danger****Hazard Statements**

H302 - Harmful if swallowed  
 H315 - Causes skin irritation  
 H319 - Causes serious eye irritation  
 H330 - Fatal if inhaled  
 H351 - Suspected of causing cancer  
 H373 - May cause damage to organs through prolonged or repeated exposure  
 H410 - Very toxic to aquatic life with long lasting effects  
 H335 - May cause respiratory irritation  
 H336 - May cause drowsiness or dizziness  
 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  
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
 P271 - Use only outdoors or in a well-ventilated area  
 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)  
 P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
 P332 + P313 - If skin irritation occurs: Get medical advice/attention  
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
 P363 - Wash contaminated clothing before reuse  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P337 + P313 - If eye irritation persists: Get medical advice/ attention

P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell

P330 - Rinse mouth

In case of fire: Use CO<sub>2</sub>, 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

May be fatal if swallowed and enters airways

### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

**Synonyms** FMC 65318: A racemate comprising (S)- $\alpha$ -cyano-3-phenoxybenzyl (1R,3R)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate and (R)- $\alpha$ -cyano-3-phenoxybenzyl (1S,3S)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate: [1 $\alpha$ (S\*),3 $\alpha$ ]( $\pm$ )-cyano(3-phenoxyphenyl)methyl 3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate

Chemical name	CAS-No	Weight %
Xylenes	1330-20-7	<2
Naphtha (petroleum), heavy aromatic	64742-94-5	70-80
Alpha-cypermethrin	67375-30-8	11.02995
Isobutyl alcohol	78-83-1	<2
Pseudocumene	95-63-6	20-30
Cumene	98-82-8	0.1-1

### Section 4: FIRST AID MEASURES

<b>Inhalation</b>	Move 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.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
<b>Eye Contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids intermittently. Consult a physician.
<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 chemical antidote. Do not give anything by mouth to an unconscious person.
<b>Most important symptoms and effects, both acute and delayed</b>	Central nervous system effects, Causes serious eye irritation.
<b>Protection of first-aiders</b>	Use personal protective equipment. See Section 8 for more detail.
<b>Indication of immediate medical attention and special treatment needed, if necessary</b>	Treat symptomatically.

### Section 5: FIRE FIGHTING MEASURES

<b>Flammable properties</b>	Flammable liquids
<b>Suitable Extinguishing Media</b>	Carbon dioxide (CO <sub>2</sub> ). Foam. Dry chemical. Water spray.

<b>Unsuitable extinguishing media</b>	No information available
<b>Specific Hazards Arising from the Chemical</b>	Keep product and empty container away from heat and sources of ignition.
<b>Hazardous Combustion Products</b>	Carbon oxides (COx), Hydrogen chloride, hydrogen cyanide, Chlorine.
<b>Protective equipment and precautions for firefighters</b>	As in any fire, wear self-contained breathing apparatus and full protective gear.

## Section 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.
<b>Methods for Containment</b>	Dike to prevent runoff.
<b>Methods for cleaning up</b>	Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. 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

<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>Materials to avoid</b>	None known

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Limits

Component	China	Japan	Korea	Australia	Taiwan
Xylenes 1330-20-7 ( <2 )	TWA: 50 mg/m <sup>3</sup> STEL: 100 mg/m <sup>3</sup>	OEL: 50 ppm OEL: 217 mg/m <sup>3</sup> ISHL/ACL: 50 ppm	STEL: 150 ppm TWA: 100 ppm	STEL 150 ppm STEL 655 mg/m <sup>3</sup> TWA 80 ppm TWA 350 mg/m <sup>3</sup>	STEL 125 ppm STEL 542.5 mg/m <sup>3</sup>
Isobutyl alcohol 78-83-1 ( <2 )		OEL: 50 ppm OEL: 150 mg/m <sup>3</sup> ISHL/ACL: 50 ppm	TWA: 50 ppm	TWA 50 ppm TWA 152 mg/m <sup>3</sup>	STEL 75 ppm STEL 190 mg/m <sup>3</sup>
Pseudocumene 95-63-6 ( 20-30 )		OEL: 25 ppm OEL: 120 mg/m <sup>3</sup>			
Cumene 98-82-8 ( 0.1-1 )		C2B	S* TWA: 50 ppm	STEL 75 ppm STEL 375 mg/m <sup>3</sup> TWA 25 ppm TWA 125 mg/m <sup>3</sup>	S* STEL 75 ppm STEL 307.5 mg/m <sup>3</sup>

<b>Engineering measures</b>	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.
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### Personal protective equipment

<b>Respiratory Protection</b>	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).
<b>Hand Protection</b>	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.
<b>Eye/Face Protection</b>	For dust, splash, mist or spray exposure, wear chemical protective goggles.
<b>Skin and Body Protection</b>	Minimize skin contamination by following good industrial hygiene practices.
<b>Hygiene measures</b>	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

<b>Physical State</b>	Liquid
<b>Appearance</b>	Amber Liquid
<b>Odor</b>	Hydrocarbon-like
<b>Color</b>	Amber
<b>Odor threshold</b>	No information available
<b>pH</b>	No information available
<b>Melting point/freezing point</b>	No information available
<b>Boiling Point/Range</b>	No information available
<b>Flash point</b>	41.8 °C / 107.24 °F Tag Closed Cup
<b>Evaporation Rate</b>	No information available
<b>Flammability (solid, gas)</b>	No information available
<b>Flammability Limit in Air</b>	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
<b>Vapor pressure</b>	No information available
<b>Vapor density</b>	No information available
<b>Specific gravity</b>	0.909-0.920
<b>Water solubility</b>	Emulsifies
<b>Solubility(ies)</b>	No information available
<b>Partition coefficient</b>	No information available
<b>Autoignition temperature</b>	No information available
<b>Decomposition temperature</b>	No information available
<b>Viscosity, kinematic</b>	No information available
<b>Viscosity, dynamic</b>	No information available
<b>Density</b>	910-920 g/L
<b>Bulk density</b>	No information available

## Section 10: STABILITY AND REACTIVITY

<b>Reactivity</b>	Not applicable
<b>Stability</b>	Stable under recommended storage conditions
<b>Hazardous reactions</b>	None under normal processing.
<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.
<b>Conditions to Avoid</b>	Heat, flames and sparks.
<b>Incompatible products</b>	None known.

**Hazardous Decomposition Products** Carbon oxides (COx), Hydrogen chloride, hydrogen cyanide. Chlorine.

## Section 11: TOXICOLOGICAL INFORMATION

### Acute toxicity

#### Numerical measures of toxicity - Product Information

LD50 Oral	Similar formulation: mg/kg (rat)
LD50 Dermal	Similar formulation: > mg/kg (rabbit)
LC50 Inhalation	Similar formulation: 0.21 mg/L 4 hr (rat)

Skin corrosion/irritation	Moderately irritating.
Serious eye damage/eye irritation	Moderately irritating to eyes.
Sensitization	Sensitizer.

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

Mutagenicity	Alpha-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	Alpha-cypermethrin: No toxicity to reproduction in animal studies.
Developmental toxicity	Alpha-cypermethrin: Not teratogenic in animal studies.
STOT - single exposure	May cause respiratory irritation.
STOT - repeated exposure	May cause damage to organs through prolonged or repeated exposure. See listed target organs below.
Chronic toxicity	Alpha-cypermethrin: Long-term exposure caused neurotoxicity (body tremors, irregular gait, excessive salivation), decreased body weight gains and increased liver weights.
Target organ effects	Central Nervous System.
Neurological effects	Alpha-cypermethrin: Causes clinical signs of neurotoxicity (body tremors, irregular gait, excessive salivation) following acute, subchronic or chronic exposure.
Symptoms	Large toxic doses administered to laboratory animals have produced symptoms such as loss of muscle control, tremors, convulsions, wheezing, lacrimation and labored respiration.
Aspiration hazard	Potential for aspiration if swallowed. May be fatal if swallowed and enters airways.

Chemical name	China	IARC
Xylenes		Group 3
Alpha-cypermethrin		Group 2A
Cumene		Group 2B

IARC (International Agency for Research on Cancer)

Group 2A - Probably Carcinogenic to Humans Group 2B - Possibly Carcinogenic to Humans Group 3 - Not classifiable as to its carcinogenicity to humans

## 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.

Alpha-cypermethrin (67375-30-8)				
Active Ingredient(s)	Duration	Species	Value	Units
Alpha-cypermethrin	48 h EC50	Crustacea	0.0003	mg/L
	96 h LC50	Fish	0.0028	mg/L
	72 h EC50	Algae	0.1	mg/L
	21 d NOEC	Crustacea	0.03	µg/L
	21 d NOEC	Fish	0.03	µg/L

<b>Persistence and degradability</b>	Alpha-cypermethrin: Moderately persistent. Does not readily hydrolyze. Not readily biodegradable.
<b>Bioaccumulation</b>	Alpha-cypermethrin: The substance has a potential for bioconcentration.
<b>Mobility</b>	Alpha-cypermethrin: Immobile; Not expected to reach groundwater.
<b>Other Adverse Effects</b>	No information available.

### Section 13: DISPOSAL CONSIDERATIONS

<b>Waste disposal methods</b>	Dispose of in accordance with local regulations.
<b>Contaminated Packaging</b>	Dispose of in accordance with federal, state and local regulations.

### Section 14: TRANSPORT INFORMATION

#### IMDG/IMO

<b>UN/ID no</b>	UN3351
<b>Proper Shipping Name</b>	Pyrethroid pesticide, liquid, toxic, flammable
<b>Hazard class</b>	6.1
<b>Subsidiary Hazard Class</b>	3
<b>Packing Group</b>	II
<b>EmS No.</b>	F-E, S-D
<b>Special Provisions</b>	61, 274
<b>Marine Pollutant</b>	Alpha-cypermethrin

#### ICAO/IATA

<b>UN/ID no</b>	UN3351
<b>Proper Shipping Name</b>	Pyrethroid pesticide, liquid, toxic, flammable
<b>Hazard class</b>	6.1
<b>Subsidiary Hazard Class</b>	3
<b>Packing Group</b>	II
<b>Marine Pollutant</b>	Alpha-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)
Xylenes 1330-20-7	X	X	X	X	X	X	X	X
Naphtha (petroleum), heavy aromatic 64742-94-5	X	X	X		X	X	X	X
Alpha-cypermethrin 67375-30-8					X	X	X	
Isobutyl alcohol 78-83-1	X	X	X	X	X	X	X	X
Pseudocumene 95-63-6	X	X	X	X	X	X	X	X
Cumene 98-82-8	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** (M)SDS sections updated.

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**End of Safety Data Sheet**