SAFETY DATA SHEET

Triple CrownTM Insecticide

SDS #: 6720-A

Revision date: 2018-05-17

Format: NA Version 2.05



1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name Triple Crown™ Insecticide

Other means of identification

Product Code(s) 6720-A

Synonyms BIFENTHRIN: (2-methyl[1,1'-biphenyl]-3-yl)methyl

(1R,3R)-rel-3-[(1Z)-2-chloro-3,3,3-trifluoro-1-propenyl]-2,2-dimethylcyclopropanecarboxylat

e (CAS name); 2-methyl-3-phenylbenzyl

(1RS)-cis-3-(2-chloro-3,3,3-trifluoroprop-1-enyl)-2,2-dimethylcyclopropanecarboxylate

(IUPAC name);

, ZETA-CYPERMETHRIN: (S)-cyano(3-phenoxyphenyl)methyl

3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate (CAS name); mix of

(S)-α-cyano-3-phenoxybenzyl

(1RS,3RS;1RS,3SR)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate (IUPAC

name),

, IMIDACLOPRID: (2E)-1-[(6-chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine (CAS name); (E)-1-(6-chloro-3-pyridylmethyl)-N-nitroimidazolidin-2-ylideneamine (IUPAC name)

Active Ingredient(s) Bifenthrin, Zeta-cypermethrin, Imidacloprid

Chemical Family Pyrethroid, Neonicotinoid

Recommended use of the chemical and restrictions on use

Recommended Use: Insecticide

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)

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2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

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

Acute toxicity - Oral	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Carcinogenicity	Category 2
Specific target organ toxicity (single exposure)	Category 1
Specific target organ toxicity (repeated exposure)	Category 1

GHS Label elements, including precautionary statements

EMERGENCY OVERVIEW

Danger

Hazard Statements

- H301 Toxic if swallowed
- H332 Harmful if inhaled
- H351 Suspected of causing cancer
- H370 Causes damage to organs
- H372 Causes damage to organs through prolonged or repeated exposure



Precautionary Statements - Prevention

- P202 Do not handle until all safety precautions have been read and understood
- 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
- P280 Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

- P308 + P311 If exposed or concerned: Call a POISON CENTER or doctor
- P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing
- P312 Call a POISON CENTER or doctor if you feel unwell
- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor
- P330 Rinse mouth

Precautionary Statements - Storage

P405 - Store locked up

Precautionary Statements - Disposal

P501 - Dispose of contents/container according to label directions

Hazards not otherwise classified (HNOC)

No hazards not otherwise classified were identified.

Other Information

Very toxic to aquatic life with long lasting effects.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Family

Pyrethroid, Neonicotinoid.

Chemical name	CAS-No	Weight %
Imidacloprid	138261-41-3	13.83
Bifenthrin	82657-04-3	7.87
Zeta-cypermethrin (F2700)	52315-07-8	2.7
Propylene glycol	57-55-6	5-10
Naphtha (petroleum), heavy aromatic	64742-94-5	5-10
2-Methylnaphthalene	91-57-6	<8 *
1-Methylnaphthalene	90-12-0	<5 *

^{*} This component is a constituent(s) of the ingredient: Naphtha (petroleum), heavy aromatic. Synonyms are provided in Section 1.

4. FIRST AID MEASU	JRE:	S
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Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove **Eye Contact**

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.

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.

Call a poison control center or doctor immediately for treatment advice Have person sip a Ingestion

glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Never give anything by mouth to an unconscious person

Most important symptoms and

effects, both acute and delayed

Central nervous system effects.

Indication of immediate medical attention and special treatment

needed, if necessary

Contains petroleum distillate. If large amounts have been ingested, the stomach and intestines should be evacuated. Vomiting may cause aspiration pneumonia. This product is a pyrethroid. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may

increase absorption and so should be avoided.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Foam, Carbon dioxide (CO₂), Dry chemical, Soft stream or water fog only if necessary.

Specific Hazards Arising from the

Chemical

Explosion data

Sensitivity to Mechanical Impact Sensitivity to Static Discharge

None known

No information available. No information available.

Protective equipment and precautions for firefighters As in any fire, wear self-contained breathing apparatus and full protective gear. Isolate fire area. Evaluate upwind.

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

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"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 upClean 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

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.

Incompatible products None known

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical name	ACGIH TLV	OSHA PEL	NIOSH	Mexico
2-Methylnaphthalene (91-57-6)	TWA: 0.5 ppm	-	-	-
1-Methylnaphthalene (90-12-0)	TWA: 0.5 ppm	-	-	-
Chemical name	British Columbia	Quebec	Ontario TWAEV	Alberta
Propylene glycol (57-55-6)	-	-	TWA: 10 mg/m³ aerosol only TWA: 50 ppm aerosol and vapor TWA: 155 mg/m³ aerosol and vapor	-
2-Methylnaphthalene (91-57-6)	TWA: 0.5 ppm Skin	-	TWA: 0.5 ppm Skin	-
1-Methylnaphthalene (90-12-0)	TWA: 0.5 ppm Skin	-	TWA: 0.5 ppm 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 If there is a potential for exposure to particles which could cause eye discomfort, wear

chemical goggles.

Skin and Body Protection Wear long-sleeved shirt, long pants, socks, and shoes.

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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 If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved

respiratory protection should be worn. Respiratory protection must be provided in

accordance with current local regulations.

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 Off-white Liquid

Physical State Liquid Color Off-white

Odor Aromatic hydrocarbon
Odor threshold No information available

pH 4.01

Melting point/freezing point Not applicable

Boiling Point/Range No information available

Flash point > 100 °C

Evaporation Rate No information available Flammability (solid, gas) No information available

Flammability Limit in Air

Upper flammability limit:No information availableLower flammability limit:No information availableVapor pressureNo information availableVapor densityNo information available

Density 9.22 lb/gal

Specific gravity
Water solubility
Solubility in other solvents
Partition coefficient
Autoignition temperature
Decomposition temperature
No information available
No information available
No information available
No information available

Viscosity, kinematic 334 cSt (mm2/s) @ 23°C, 760 cSt (mm2/s) @ 43°C

Viscosity, dynamic
Explosive properties
Oxidizing properties
Molecular weight
Bulk density
No information available
No information available
No information available
No information available

10. STABILITY AND REACTIVITY

Reactivity None under normal use conditions

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.

11. TOXICOLOGICAL INFORMATION

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Product Information

LD50 Oral 175 mg/kg (rat) **LD50 Dermal** > 5,000 mg/kg (rat) > 2.08 mg/L 4 hr (rat) LC50 Inhalation

Serious eye damage/eye irritation

Skin corrosion/irritation

Sensitization

Minimally irritating (rabbit). Moderately irritating (rabbit).

Non-sensitizing

Information on toxicological effects

Symptoms Large doses of zeta-cypermethrin, ingested by laboratory animals, may produce signs of

> toxicity including tremors, incoordination, convulsions, staggered gait, and oral discharge. Large doses of bifenthrin ingested by laboratory animals produced signs of toxicity including

convulsions, tremors and bloody nasal discharge.

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

Chronic toxicity Bifenthrin: Long-term exposure caused neurotoxicity (tremors and impaired gait) in the early

exposure in animal studies, but tremors disappeared with continued exposure.

Zeta-cypermethrin: Long-term exposure caused neurotoxicity (body tremors, decreased

motor activity), decreased body weight and increased liver weight.

Mutagenicity Bifenthrin, Zeta-cypermethrin: Not genotoxic in laboratory studies.

Imidacloprid: No evidence of carcinogenicity from animal studies. Bifenthrin: Weak Carcinogenicity

> treatment-related response for liver adenocarcinomas and benign bladder tumors (lesion) in male mice. 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. 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).

Neurological effects Bifenthrin: Causes clinical signs of neurotoxicity (tremors, impaired gait, excessive

> salivation) following acute or subchronic exposure. Tremors disappeared with continued exposure. Zeta-cypermethrin: Causes neurotoxicity (tremors and decreased motor activity)

following acute, subchronic or chronic exposure.

Reproductive toxicity Imidacloprid, Bifenthrin, Zeta-cypermethrin: No toxicity to reproduction in animal studies.

Bifenthrin, Zeta-cypermethrin: Not teratogenic in animal studies. **Developmental toxicity**

STOT - single exposure Causes damage to organs: See listed target organs below.

STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure: See listed target

organs below.

Central Nervous System (CNS), blood Thyroid, liver Target organ effects

Neurological effects Bifenthrin: Causes clinical signs of neurotoxicity (tremors, impaired gait, excessive

salivation) following acute or subchronic exposure. Tremors disappeared with continued exposure. Zeta-cypermethrin: Causes neurotoxicity (tremors and decreased motor activity)

following acute, subchronic or chronic exposure.

Potential for aspiration if swallowed. **Aspiration hazard**

	Chemical name	ACGIH	IARC	NTP	OSHA
	Imidacloprid		Group 2A		
	138261-41-3		-		
Z	eta-cypermethrin (F2700)		Group 2A		
	52315-07-8				

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Legend:

IARC (International Agency for Research on Cancer) Group 2A - Probably Carcinogenic to Humans

12. ECOLOGICAL INFORMATION

Ecotoxicity

Imidacloprid (138261-41-3)					
Active Ingredient(s)	Duration	Species	Value	Units	
Imidacloprid	96 h LC50	Fish	211	mg/L	
	48 h EC50	Daphnia	85	mg/L	
	LD50	Bee	0.0039	μg/bee	
	LD50 Oral	Bobwhite quail	152	mg/kg	

Bifenthrin (82657-04-3)				
Active Ingredient(s)	Duration	Species	Value	Units
Bifenthrin	96 h LC50	Fish	0.1	μg/L
	72 h EC50	Algae	0.822	mg/L
	48 h EC50	Crustacea	0.11	μg/L
	21 d NOEC	Fish	0.012	μg/L
	21 d NOEC	Crustacea	0.0013	μg/L

Zeta-cypermethrin (F2700) (52315-07-8)						
Active Ingredient(s)	Duration	Species	Value	Units		
Zeta-cypermethrin	48 h EC50	Crustacea	0.14	μg/L		
	96 h LC50	Fish	0.69	μg/L		
	72 h EC50	Algae	>1	mg/L		
	21 d NOEC	Crustacea	0.01	μg/L		
	21 d NOEC	Fish	0.015	ua/L		

Persistence and degradability Imidacloprid: Does not readily hydrolyze. Bifenthrin: Moderately persistent. Does not readily

hydrolyze. Not readily biodegradable. Zeta-cypermethrin: Non-persistent. Readily

hydrolyzed. Not readily biodegradable.

BioaccumulationBifenthrin: The substance has a potential for bioconcentration. Zeta-cypermethrin: The

substance does not have a potential for bioconcentration.

Mobility Bifenthrin, Zeta-cypermethrin: Immobile, Not expected to reach groundwater.

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 PackagingContainers 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 The following packaging types are shipped under the Limited Quantity provisions as

specified in 49CFR 173.153(b).

4 x 1 gallon, 4 x 1 quart, 4 x 4 x 1 quart

Packaging Type Non-Bulk / Bulk

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UN/ID no UN3352

Proper Shipping Name Pyrethroid pesticide, liquid, toxic

Hazard class 6.1 Packing Group III

Marine Pollutant Zeta-cypermethrin.

Description UN3352, Pyrethroid pesticide, liquid, toxic (Zeta-cypermethrin), 6.1, III

The Marine Pollutant mark is only applicable when shipped in BULK packages.

TDG

UN/ID no UN3352

Proper Shipping Name Pyrethroid pesticide, liquid, toxic

Hazard class 6.1
Packing Group

Marine Pollutant Zeta-cypermethrin.

Description UN3352, Pyrethroid pesticide, liquid, toxic (Zeta-cypermethrin), 6.1 III, Marine Pollutant

ICAO/IATA

UN/ID no UN3352

Proper Shipping Name Pyrethroid pesticide, liquid, toxic

Hazard class 6.1 Packing Group

Description UN3352, Pyrethroid pesticide, liquid, toxic (Bifenthrin, Zeta-cypermethrin), 6.1, III, Marine

pollutant

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 Bifenthrin, Zeta-cypermethrin

Description UN3352 Pyrethroid pesticide, liquid, toxic (Bifenthrin, Zeta-cypermethrin), 6.1, 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 %
Bifenthrin - 82657-04-3	82657-04-3	7.87	1.0

SARA 311/312 Hazard Categories

Acute health hazard Yes
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	Х	X

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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
Methyl ethyl ketone 78-93-3	5000 lb 2270 kg	
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:

WARNING

Maybe fatal if swallowed. Causes moderate eye irritation.

This pesticide is toxic to marine/estuarine invertebrates.

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Bifenthrin	X		
82657-04-3			
Zeta-cypermethrin (F2700)		X	
52315-07-8			
Propylene glycol	X		X
57-55-6			
2-Methylnaphthalene	X		
91-57-6			
1-Methylnaphthalene	X	X	X
90-12-0			

International Inventories

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINC S (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Imidacloprid 138261-41-3			Х		Х		Х	
Bifenthrin 82657-04-3				Х	Х	X		
Zeta-cypermethrin (F2700) 52315-07-8			X		Х	X	Х	Х
Propylene glycol 57-55-6	Х	Х	Х	Х	Х	X	Х	Х
Naphtha (petroleum), heavy aromatic 64742-94-5	Х	Х	Х		Х	Х	Х	Х
2-Methylnaphthalene	Х	Х	Х	Χ	Х		Х	Х

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91-57-6							
1-Methylnaphthalene 90-12-0	Х	Х	Х	Х	Х	Х	Х

Mexico - Grade Serious risk, Grade 3

Chemical name	Mexico - Pollutant Release and Transfer Register - Reporting Emissions for Fabrication, Process or Use -Threshold Quantities	Pollutant Release and Transfer Register - Reporting Emissions - Threshold Quantities
Imidacloprid	500	500 kg/yr
	5000 kg/yr	
Bifenthrin	100	100 kg/yr
	2500 kg/yr	

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 D1B - Toxic materials

D2A - Very toxic materials D2B - Toxic materials





16. OTHER INFORMATION					

NFPA	Health Hazards 2	Flammability 1	Instability 0	Special Hazards -
HMIS	Health Hazards 2*	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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Reason for revision: (M)SDS sections updated

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End of Safety Data Sheet