

FORCE® EVO

Date: 1/19/2017
 Replaces: 1/9/2017

1. PRODUCT IDENTIFICATION

Product identifier on label: **FORCE® EVO**
 Product No.: A21581B
 Use: Insecticide
 Manufacturer: Syngenta Crop Protection, LLC
 Post Office Box 18300
 Greensboro NC 27419
 Manufacturer Phone: 1-800-334-9481

Emergency Phone: 1-800-888-8372

2. HAZARDS IDENTIFICATION

Classifications: Carcinogenicity: Category 2
 Specific Target Organ Toxicity: Drowsiness Category 3
 Aspiration Hazard: Category 1
 Flammable Liquid: Category 4
 Eye Damage/Irritation: Category 1
 Oral: Category 3
 Dermal: Category 3
 Inhalation: Category 1

Signal Word (OSHA): **Danger**

Hazard Statements: Combustible liquid
 Toxic if swallowed
 May be fatal if swallowed and enters airways
 Toxic in contact with skin
 Causes serious eye damage
 Fatal if inhaled
 May cause drowsiness or dizziness
 Suspected of causing cancer

Hazard Symbols:



Precautionary Statements: Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Do not breathe mist, vapors, spray.
 In case of inadequate ventilation wear respiratory protection. See Section 8 Exposure Control/Personal Protection.

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If exposed or concerned: Get medical advice/attention.
Specific treatment is urgent (see Section 4 First Aid Measures).
Keep away from heat, sparks, open flames, hot surfaces. No smoking.
Wash hands and face thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves, protective clothing, eye protection.
If swallowed: Immediately call a poison center, doctor or Syngenta. Rinse mouth.
If on skin: Wash with plenty of soap and water.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
Immediately call a poison center, doctor or Syngenta.
Call a poison center, doctor or Syngenta if you feel unwell.
Do NOT induce vomiting.
Take off immediately all contaminated clothing and wash it before reuse.
In case of fire: Use dry chemical, foam or CO2 for extinction.
Store in a well-ventilated place. Keep cool.
Store locked up.
Dispose of contents and container in accordance with local regulations.

Other Hazard Statements: May cause temporary itching, tingling, burning or numbness of exposed skin, called paresthesia.
Combustible liquid. Can release vapors that form explosive mixtures at temperatures at or above the flash point. Heavy vapors can flow along surfaces to distant ignition sources and flash back. During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Common Name	CAS Number	Concentration
Naphthalene	Naphthalene	91-20-3	<1.0%
1-Octanol	1-Octanol	111-87-5	<5.0%
Solvent	Solvent	25265-71-8	<5.0%
Petroleum Solvent	Petroleum Solvent	Trade Secret	<50.0%
Other ingredients	Other ingredients	Trade Secret	>14.8%
(2,3,5,6-tetrafluoro-4-methylphenyl)methyl-(1a,3a)-(Z)-3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate	Tefluthrin	79538-32-2	24.2%

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

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4. FIRST AID MEASURES

Have the product container, label or Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison control center or doctor, or going for treatment.

Ingestion: If swallowed: Call Syngenta (800-888-8372), a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so after calling 800-888-8372 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Eye Contact: If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

Skin Contact: If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

Inhalation: If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call Syngenta (800-888-8372), a poison control center or doctor for further treatment advice.

Most important symptoms/effects:

Eye irritation

Skin irritation

Drowsiness or dizziness

Respiratory irritation

Indication of immediate medical attention and special treatment needed:

There is no specific antidote if this product is ingested.

Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:

Use dry chemical, foam or CO2 extinguishing media. If water is used to fight fire, dike and collect runoff.

Specific Hazards:

None known.

Special protective equipment and precautions for firefighters:

Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:

Follow exposure controls/personal protection outlined in Section 8.

Methods and materials for containment and cleaning up:

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

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7. HANDLING AND STORAGE

Precautions for safe handling:

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Conditions for safe storage, including any incompatibilities:

Store locked up.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Occupational Exposure Limits:

Chemical Name	OSHA PEL	ACGIH TLV	Other	Source
Naphthalene	10 ppm TWA	10 ppm TWA (skin)	10 ppm TWA	NIOSH
1-Octanol	Not Established	Not Established	50 ppm TWA	AIHA
Solvent	Not Established	Not Established	Not Established	Not Applicable
Petroleum Solvent	Not Established	Not Established	100 mg/m ³ (15 ppm) TWA based on total hydrocarbon	Manufacturer
Other ingredients	Not Established	Not Established	Not Established	Not Applicable
Tefluthrin	Not Established	Not Established	0.04 mg/m ³ TWA (skin)	Syngenta

Appropriate engineering controls:

Use effective engineering controls to comply with occupational exposure limits (if applicable).

Individual protection measures:

Ingestion:

Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Eye Contact:

Where eye contact is likely, use splash-proof chemical goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Skin Contact:

Where contact is likely, wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear.

Inhalation:

A combination particulate/organic vapor respirator should be used until effective engineering controls are installed to comply with occupational exposure limits, or until exposure limits are established. Use a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P or HE filter.

Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any

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circumstances where air-purifying respirators may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Amber liquid
Odor: Aromatic
Odor Threshold: Not Applicable
pH: 3.7
Melting point/freezing point: Not Available
Initial boiling point and boiling range: Not Applicable
Flash Point (Test Method): 73°C
Flammable Limits (% in Air): Not Available
Flammability: Not Available
Vapor Pressure: Tefluthrin 6 x 10⁻⁵ mmHg @ 68°F (20°C)
Vapor Density: Not Available
Relative Density: 1.033 g/cm³ @ 68°F (20°C)
Solubility (ies): Tefluthrin Insoluble
Partition coefficient: n-octanol/water: Not Available
Autoignition Temperature: =415°C
Decomposition Temperature: Not Available
Viscosity: 15mPa @ 68°F (20°C)
Other: None

10. STABILITY AND REACTIVITY

Reactivity: Not reactive.
Chemical stability: Stable under normal use and storage conditions.
Possibility of hazardous reactions: Will not occur.
Conditions to Avoid: None known.
Incompatible materials: None known.
Hazardous Decomposition Products: None known.

11. TOXICOLOGICAL INFORMATIONHealth effects information

Likely routes of exposure: Dermal, Inhalation

Symptoms of exposure: Eye irritation, Drowsiness or dizziness, Skin irritation, Respiratory irritation

Delayed, immediate and chronic effects of exposure: Possible carcinogenicity, Eye irritation, Skin irritation, Drowsiness or dizziness, Respiratory system effects, Paresthesia

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Numerical measures of toxicity (acute toxicity/irritation studies (finished product))

Ingestion:	Oral (LD50 Rat) :	>50 and <=300 mg/kg body weight
Dermal:	Dermal (LD50 Rat) :	>200 and <=1000 mg/kg body weight
Inhalation:	Inhalation (LC50 Rat) :	>=0.05 mg/l
Eye Contact:	Not Available	
Skin Contact:	Not Available	
Skin Sensitization:	Not Available	

Reproductive/Developmental Effects

Tefluthrin: No evidence in the rat or rabbit.

Chronic/Subchronic Toxicity Studies

Tefluthrin: In 90-day and 1 year studies in dogs, elicited ataxia or tremors at the highest doses tested (1.5 and 2.0 mg/kg/d respectively).
Causes SFS as with other pyrethroids.

Carcinogenicity

Tefluthrin: Not considered to be carcinogenic. Not mutagenic.

Chemical Name	NTP/IARC/OSHA Carcinogen
Naphthalene	See "Toxicity", Sec. 11
1-Octanol	No
Solvent	No
Petroleum Solvent	No
Other ingredients	No
(2,3,5,6-tetrafluoro-4-methylphenyl)methyl-(1a,3a)-(Z)-3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate	No

Other Toxicity Information

Not Available

Toxicity of Other Components

1-Octanol

Exposure may cause eye, skin and respiratory tract irritation. Prolonged skin contact may cause dermatitis and defatting.

Naphthalene

Exposure to naphthalene can cause cataracts, liver damage, kidney failure, respiratory failure, hematuria, anemia, damage to red blood cells, leukocytosis, or coma.

Carcinogen Status:

NTP: Anticipated Carcinogen

IARC: Group 2B Possible Human Carcinogen

Other ingredients

Not Established

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Petroleum Solvent

May cause eye and skin irritation. High vapor/aerosol concentrations (attainable at elevated temperatures well above ambient) are irritating to the eyes and respiratory tract, and may cause headaches, dizziness, anaesthesia, drowsiness, unconsciousness and other central nervous effects. May be harmful if swallowed and inhaled.

Solvent

May cause eye and skin irritation. May cause respiratory and digestive tract irritation.

Target Organs

Active Ingredients

Tefluthrin: CNS

Inert Ingredients

1-Octanol: Eye, skin, respiratory tract
 Naphthalene: Eye, liver, kidney, respiratory tract, blood, CNS
 Other ingredients: Not Established
 Petroleum Solvent: Eye, skin, CNS, respiratory tract
 Solvent: Eye, skin, respiratory tract, digestive tract

12. ECOLOGICAL INFORMATION

Eco-Acute Toxicity

Tefluthrin:

Fish (Rainbow Trout) 96-hour LC50 0.06 ppb
 Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 0.07 ppb
 Bird (Mallard Duck) 14-day LD50 4190 mg/kg

Environmental Fate

Tefluthrin:

The information presented here is for the active ingredient, tefluthrin.
 Not persistent in soil. Stable in water. Low mobility in soil. Sinks in water (after 24 h.).

13. DISPOSAL CONSIDERATIONS

Disposal:

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Not Applicable

Listed Waste: Not Applicable

14. TRANSPORT INFORMATION

DOT Classification

Ground Transport - NAFTA
 Proper Shipping Name: Pyrethroid Pesticide, Liquid, Toxic (Tefluthrin)
 Hazard Class: Class 6.1
 Identification Number: UN 3352
 Packing Group: PG III

Comments

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Water Transport - International
 Proper Shipping Name: Pyrethroid Pesticide, Liquid, Toxic (Tefluthrin) Marine Pollutant
 Hazard Class: Class 6.1
 Identification Number: UN 3352
 Packing Group: PG III

Air Transport
 Proper Shipping Name: Pyrethroid Pesticide, Liquid, Toxic (Tefluthrin)
 Hazard Class: Class 6.1
 Identification Number: UN 3352
 Packing Group: PG III

15. REGULATORY INFORMATION

Pesticide Registration:

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:

Danger-Poison: Fatal if absorbed through the skin. Fatal if inhaled. Fatal if swallowed. Corrosive. Causes skin burns. Causes irreversible eye damage. Do not get in eyes, on skin, or on clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Wear coveralls worn over long-sleeved shirt and long pants, socks, chemical-resistant footwear, and chemical-resistant gloves (such as Barrier Laminate, Butyl Rubber, Nitrile Rubber). Remove and wash contaminated clothing before reuse. Do not breathe spray mist. Wear protective eyewear (goggles, face shield, or safety glasses).

EPA Registration Number(s):

100-1610

EPCRA SARA Title III Classification:

Section 311/312 Hazard Classes: Acute Health Hazard

Section 313 Toxic Chemicals: Naphthalene <1.0% (CAS No. 91-20-3)

CERCLA/SARA 304 Reportable Quantity (RQ):

Not Applicable

RCRA Hazardous Waste Classification (40 CFR 261):

Not Applicable

TSCA Status:

TSCA R & D Exempt

16. OTHER INFORMATION

NFPA Hazard Ratings

Health: 3
 Flammability: 1
 Instability: 0

HMIS Hazard Ratings

Health: 3
 Flammability: 1
 Physical Hazard: 0

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme
*	Chronic

Syngenta Hazard Category: D,S

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For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 2/5/2016
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Section(s) Revised: 11

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