

FORCE® CS INSECTICIDE

Date: 6/26/2015
Replaces: 2/25/2015

1. PRODUCT IDENTIFICATION

Product identifier on label: **FORCE® CS INSECTICIDE**

Product No.: A14974A

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: Oral: Category 3
Inhalation: Category 2

Signal Word (OSHA): Danger

Hazard Statements: Toxic if swallowed
Fatal if inhaled

Hazard Symbols:



Precautionary Statements: Do not breathe mist, vapors, spray.
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.
In case of inadequate ventilation wear respiratory protection. See Section 8 Exposure Control/Personal Protection.
If swallowed: Immediately call a poison center, doctor or Syngenta. Rinse mouth.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
Immediately call a poison center, doctor or Syngenta.
Specific treatment is urgent (see Section 4 First Aid Measures).
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.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | Common Name | CAS Number | Concentration |
|--|-------------------|--------------|---------------|
| 1,2-Propanediol | Propylene Glycol | 57-55-6 | Trade Secret |
| Other ingredients | Other ingredients | Trade Secret | <76.6% |
| (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 | 23.4% |

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

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:

Not Applicable

Indication of immediate medical attention and special treatment needed:

There is no specific antidote if this product is ingested.

Treat symptomatically.

Skin contact paresthesia effects (itching, tingling, burning or numbness) are transient, lasting up to 24 hours. 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:

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

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.

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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.

7. HANDLING AND STORAGE

Precautions for safe handling:
 Do not allow product to freeze.

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 |
|-------------------|-----------------|-----------------|-----------------------------------|----------------|
| Propylene Glycol | Not Established | Not Established | 10 mg/m ³ TWA | AIHA |
| Other ingredients | Not Applicable | Not Applicable | Not Applicable | 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 chemical splash goggles.

Skin Contact:

Where contact is likely, wear chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride [PVC] or Viton), coveralls, socks and chemical-resistant footwear.
 Stringent housekeeping measures are necessary to prevent translocation of the material from contaminated work surfaces

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to uncontaminated surfaces (railings, doors, etc.). Unprotected contact with such translocated material can result in paresthesia effects (see Section 11 of MSDS). Do not touch unprotected skin areas (face) with contaminated gloves or clothing.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Beige liquid
Odor: Aromatic
Odor Threshold: Not Available
pH: 6.7 (1% in deionized H₂O @ 77°F (25°C))
Melting point/freezing point: Not Applicable
Initial boiling point and boiling range: Not Available
Flash Point (Test Method): > 203°F
Flammable Limits (% in Air): Not Available
Flammability: Not Applicable
Vapor Pressure: Tefluthrin 6 x 10⁻⁵ mmHg @ 68°F (20°C)
Vapor Density: Not Available
Relative Density: 1.0671 g/cm³ @ 68°F (20°C)
Solubility (ies): Tefluthrin Insoluble
Partition coefficient: n-octanol/water: Not Available
Autoignition Temperature: ~ 788°F
Decomposition Temperature: Not Available
Viscosity: Not Available
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.

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11. TOXICOLOGICAL INFORMATION

Health effects information

Likely routes of exposure: Dermal, Inhalation

Symptoms of exposure: Itching, tingling, burning or numbness

Delayed, immediate and chronic effects of exposure: Paresthesia

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

| | | |
|---------------------|-------------------------------|-------------------------------|
| Ingestion: | Oral (LD50 Female Rat) : | 174 mg/kg body weight |
| Dermal: | Dermal (LD50 Female Rat) : | 2000 - 5000 mg/kg body weight |
| Inhalation: | Inhalation (LC50 Rat) : | Not Available |
| Eye Contact: | Mildly Irritating (Rabbit) | |
| Skin Contact: | Slightly Irritating (Rabbit) | |
| Skin Sensitization: | Not a Sensitizer (Guinea Pig) | |

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 |
|--|--------------------------|
| 1,2-Propanediol | 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

In humans, contact with exposed skin may result in temporary itching, tingling, burning or numbness, called paresthesia. The effect may result from splash, aerosol, or hot vapor contact, or transfer to the face from contaminated gloves and hands. The symptoms normally disappear within 24 hours. Face and genital areas are especially susceptible to this effect. Paresthesia involving the face is also known as "subjective facial sensation" or SFS.

Toxicity of Other Components

Other ingredients
Not Applicable

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Propylene Glycol

Reported to cause central nervous system depression (anesthesia, dizziness, confusion), headache and nausea. Also, eye irritation may occur with lacrimation but no residual discomfort or injury. Prolonged contact to skin may cause mild to moderate irritation and possible allergic reactions. Chronic dietary exposure caused kidney and liver injury in experimental animals.

Target Organs**Active Ingredients**

Tefluthrin: CNS

Inert Ingredients

Other ingredients: Not Applicable

Propylene Glycol: CNS, kidney, liver

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 Pesticides, Liquid, Toxic, (Tefluthrin)
Hazard Class or Division: Division 6.1
Identification Number: UN 3352
Packing Group: PG III
Emerg. Response #: 151

Comments

Water Transport - International
Proper Shipping Name: Pyrethroid Pesticides, Liquid, Toxic, (Tefluthrin), Marine Pollutant
Hazard Class or Division: Division 6.1
Identification Number: UN 3352
Packing Group: PG III
IMDG EMS #: F-A, S-A

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Air Transport - NAFTA and International
 Proper Shipping Name: Pyrethroid Pesticides, Liquid, Toxic, (Tefluthrin)
 Hazard Class or Division: Division 6.1
 Identification Number: UN 3352
 Packing Group: PG III
 Packing Instructions: Passenger: PI 611 - Max. inner package 2.5 liter, Single packaging, 60 liter Max.
 Cargo: PI 618 - 5 liter. Inner packages, 220 liter single packages

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:

Warning: May be fatal if swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Harmful if absorbed through skin. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

EPA Registration Number(s):
 100-1253

EPCRA SARA Title III Classification:

Section 311/312 Hazard Classes: Acute Health Hazard
 Chronic Health Hazard

Section 313 Toxic Chemicals: None

CERCLA/SARA 304 Reportable Quantity (RQ):
 None

RCRA Hazardous Waste Classification (40 CFR 261):
 Not Available

TSCA Status:
 Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

NFPA Hazard Ratings

Health: 2
 Flammability: 1
 Instability: 0

HMIS Hazard Ratings

Health: 2
 Flammability: 1
 Reactivity: 0

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

Syngenta Hazard Category: C

For non-emergency questions about this product call:

1-800-334-9481

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Date: 6/26/2015
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Original Issued Date: 4/7/2006
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