

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

October 24, 2018

Kristi Barnett US Product Registration Specialist FMC Corporation FMC Stine Research Center P.O. Box 30 Newark, DE 19714-0030

Subject: Notification per PRN 98-10 – Steward® Insecticide (EPA Reg. No. 279-9588, formerly 352-598); Primary Brand Name; Label Edits Related to Registration Transfer of EPA

Reg. No. 352-598 to FMC Corporation

Product Name: Steward® Insecticide EPA Registration Number: 279-9588 Application Date: July 23, 2018 Decision Number: 545322

#### Dear Barnett:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Page 2 of 2 EPA Reg. No. 279-9588 Decision No. 545322

If you have any questions, please contact Mr. Carmen J. Rodia, Jr. by phone at (703) 306-0327, or via email at <a href="mailto:Rodia.Carmen@epa.gov">Rodia.Carmen@epa.gov</a>.

Sincerely,

Richard Gebken

Product Manager 10

Invertebrate & Vertebrate Branch 2

Registration Division (7505P)

Office of Pesticide Programs



This registration was transferred to FMC 5/25/2018. This is a copy of the new FMC labeling with changes highlighted vs. the currently accepted DuPont labeling identified with the EPA Reg. No. 352-598 (Label ID SL-1076 120805 01-14-06). This label is submitted via Notification to the Agency showing the FMC labeling for newly transferred EPA Reg. No. 279-9588.

INSECTICIDE

#### Suspension Concentrate

Contains 1.25 lbs. Active Ingredient per gallon.

Active Ingredient By Weight Indoxacarb (S)-methyl 7-chloro-2,5-dihydro-2-[[(methoxycarbonyl)[4(trifluoromethoxy)phenyl]amino]carbonyl]indeno[1,2-e][1,3,4]oxadiazine-4a-(3H)-carboxylate 14.5% Inert Ingredients 85.5% **TOTAL** 100% NOTIFICATION EPA Reg. No. 279-9588 279-9588 The applicant has certified that no NET CONTENTS: changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated: Establishment No.:

# PRECAUTIONARY STATEMENTS KEEP OUT OF REACH OF CHILDREN CAUTION FIRST AID

10/24/2018

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF ON SKIN OR CLOTHING:** Remove contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact **1-800-331-3148** for emergency medical treatment information.



Added FMC logo and address

# PRECAUTIONARY STATEMENTS (cont'd) HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**Caution!** Harmful if swallowed. Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Harmful if inhaled. Avoid breathing (dust, vapor or spray mist). Remove contaminated clothing and wash clothing before reuse.

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

#### PERSONAL PROTECTIVE EQUIPMENT

Some materials that are chemical resistant to this product are listed below. If you want more options follow the instructions for Category A on the EPA chemical resistance category selection chart.

#### Applicators and other handlers must wear:

Long-sleeved shirt and long pants.

Chemical Resistant Gloves Category A (such as butyl rubber, natural rubber, neoprene rubber or nitrile rubber), all  $\geq$ 14 mls.

Shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE). If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **USER SAFETY RECOMMENDATIONS**

**USERS SHOULD:** Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

#### **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to mammals, birds, fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment rinsewater. Do not apply where/when conditions could favor runoff. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

For early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, wear:

Coveralls over long sleeved shirt and long pants Socks plus chemical resistant footwear

Chemical Resistant Gloves Category A (such as butyl rubber, natural rubber, neoprene rubber or nitrile rubber), all ≥14 mls.

STEWARD® should be used only in accordance with recommendations on this label or in separate FMC supplemental labeling available through local dealers.

FMC will not be responsible for losses or damages resulting from use of this product in any manner not specifically recommended by FMC. User assumes all risks associated with such non-recommended use.

#### **GENERAL INFORMATION**

STEWARD® is a suspension concentrate that can be applied as a foliar spray to control many important insects. STEWARD® is diluted with water for application.

Do not formulate this product into any other End-use products without written permission of FMC.

Do not use in greenhouses.

CHEMIGATION: Refer to supplemental or Special Local Need (SLN) labeling for use directions for chemigation. Do not apply this product through any irrigation system unless the supplemental or SLN labeling on chemigation is followed.

Always shake well before use.

#### INTEGRATED PEST MANAGEMENT

FMC supports the use of Integrated Pest Management (IPM) programs to control pests. This product may be used as part of an IPM program which can include biological, cultural, and genetic practices aimed at preventing economic pest damage. IPM principles and practices include field scouting or other detection methods, correct target pest identification, population monitoring, rotation of insecticides with different modes-of-action, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop or site systems in your area.

#### BENEFICIAL ARTHROPODS

Other than reducing the target pest species as a food source, STEWARD® helps conserve certain beneficial arthropods, including parasitic wasps, predatory mites, big-eyed bugs, damsel bugs, minute pirate bugs, and spiders. While these beneficials cannot be relied upon to control pests, they are of potential value and can be monitored along with pests in pest management programs on these crops.

#### SCOUTING

Monitor insect populations to determine whether or not there is a need for application of STEWARD® based on locally determined economic thresholds. More than one treatment of STEWARD® may be required to control a population of pests.

#### RESISTANCE

Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, this product may be used as part of resistant management strategies established for the use area. These strategies may include incorporation of cultural and biological control practices, alternation of mode-of-action classes of insecticides on succeeding generations and targeting the most susceptible life stage. Consult your local agricultural authorities for details.

#### APPLICATION

Apply at the recommended rates when insect populations reach locally determined economic thresholds. Consult the cooperative extension service, professional consultants or other qualified authorities to determine appropriate threshold levels for treatment in your area.

STEWARD® applications should target eggs and small instar larvae.

Follow-up treatments of STEWARD® should be applied, as needed, to keep pest populations within threshold limits. STEWARD® should be applied at 5 to 7 day intervals to maintain control.

Use sufficient water to obtain thorough, uniform coverage. For aerial application, use a minimum of 3 gals. water per

For aerial application, use a minimum of 3 gals, water per acre (gpa) [minimum of 5 gals water per acre in Arizona and California]. For ground application, use a minimum of 5 gals, water per acre. Higher gallonage will provide better coverage and performance.

Crops	Insects	STEWARD® Rate Per Acre		Acres Treated per	Last Application	
		Lbs. A.I.	Fluid Ounces	Gal. of STEWARD®	Days to Harvest	REI
Alfalfa	Alfalfa caterpillar Alfalfa weevil larvae Beet armyworm Egyptian alfalfa weevil larvae Granulate cutworm	0.065 - 0.11	6.7 - 11.3	11.5 - 19	7	12 hrs.
	Potato leafhopper (except California) (suppression only) Western yellowstriped armyworm	0.09 - 0.11	9.2 - 11.3	11.5 - 14		
	Do not apply more than 45 fl.oz. STEWARD® (0.44 lb a.i.) per acre per crop season. Make no more than one application per cutting.  Not for use in alfalfa grown for seed or in alfalfa grown for alfalfa sprouts for human consumption. Apply lower rates on light to moderate infestations. Use intermediate to high rates on heavier infestations or when later instar larvae exist. Use the highest recommended rate for controlling severe infestations or when longer residual control is desired.				For alfalfa, harvest is defined as when the crop is cut.	
Peanut	Beet armyworm Corn earworm Fall armyworm Granulate cutworm Rednecked peanutworm (except California)	0.09 - 0.11	9.2 - 11.3	11.5 - 14	14	12 hrs.
	The minimum interval between treatments is 5 days. Do not apply more than 45 fl. oz. STEWARD® (0.44 lb. a.i.) per acre per crop.					
Soybean (except California)	Beet armyworm Cabbage looper Corn earworm Fall armyworm Green cloverworm Soybean looper Velvetbean caterpillar (suppression only) Yellowstriped armyworm	0.055 - 0.11	5.6 - 11.3	11.5 - 22.8	21	12 hrs.
	The minimum interval between treatments is 5 days.  Do not apply more than 45 fl. oz. STEWARD® (0.44 lb. a.i.) per acre per crop.  NOTE: Do not feed or graze livestock on treated fields.					

#### SPRAY PREPARATION

Spray equipment must be clean and free of previous pesticide deposits before applying STEWARD®. Fill spray tank 1/4 to 1/2 full of water. Add STEWARD® directly to spray tank. Mix thoroughly to fully disperse the insecticide; once dispersed continued agitation is required. Use mechanical or hydraulic means; do not use air agitation. Spray mix should not be stored overnight in spray tank.

Compatibility - Since formulations may be changed and new ones introduced, it is recommended that users premix a small quantity of a desired tank mix and observe for possible adverse changes (settling out, flocculation, etc.). Avoid mixtures of several materials and very concentrated spray mixtures.

<u>Tank Mixing Sequence</u> - Add different formulation types in the sequence indicated below. Allow time for complete mixing and dispersion after addition of each product.

- 1. Water soluble bags.
- 2. Water dispersible granules.
- 3. Wettable powders.
- 4. Water based suspension concentrates.
- 5. Water soluble concentrates.
- STEWARD® and other oil based suspension concentrates.
- 7. Emulsifiable concentrates.
- 8. Adjuvants, surfactants, oils.
- 9. Soluble fertilizers.
- 10. Drift retardants.

#### SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

#### IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets (>150 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS! See Wind, Temperature and Humidity, and Surface Temperature Inversions sections of this label.

#### Controlling Droplet Size - General Techniques

- **Volume** Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.• **Nozzle Type** Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles.

#### Controlling Droplet Size - Aircraft

- **Number of Nozzles** Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.
- **Nozzle Orientation** Orienting nozzles so that the spray is emitted backwards, parallel to the airstream will produce larger droplets than other orientations.
- Nozzle Type Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.
- Do not apply as a ULV application.

#### **BOOM LENGTH AND HEIGHT**

- **Boom Length** (aircraft) The boom length should not exceed 3/4 of the wing length, using shorter booms decreases drift potential. For helicopters use a boom length and position that prevents droplets from entering the rotor vortices.
- Boom Height (aircraft) Application more than 10 ft above the canopy increases the potential for spray drift.
- Boom Height (ground) Setting the boom at the lowest height which provides uniform coverage reduces the exposure of droplets to evaporation and wind. The boom should remain level with the crop and have minimal bounce.

#### **WIND**

Drift potential increases at wind speeds of less than 3 mph (due to variable direction and inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. AVOID APPLICATIONS DURING GUSTY OR WINDLESS CONDITIONS.

**Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they effect spray drift.

#### TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

#### SURFACE TEMPERATURE INVERSIONS

Drift potential is high during a surface temperature inversion. Surface inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Surface inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates a surface inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

### AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured properly, and that drift is not occurring.

**Note:** Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the application equipment section of this label to determine if use of an air assisted sprayer is recommended.

#### SPRAY TANK CLEANOUT

Prior to application, start with clean, well maintained application equipment. Immediately following application, thoroughly clean all spray equipment to reduce the risk of forming hardened deposits which might become difficult to remove.

Drain spray equipment. Thoroughly rinse sprayer and flush hoses, boom and nozzles with clean water.

Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment. Do not clean near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.

#### **CROP ROTATION RESTRICTIONS**

Crops that are on this label and apple, broccoli, brussels sprouts, cabbage, cauliflower, Chinese broccoli, Chinese cabbage, Chinese mustard cabbage, kohlrabi, lettuce (head and leaf varieties), pear, pepper (bell and non-bell), potato, sweet corn and tomato may be planted immediately following harvest. Do not plant for food or feed any other crops not registered for use with indoxacarb for 30 days after last use.

#### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

**STORAGE:** Do not subject to temperatures below 32 degrees F. Store product in original container only in a location inaccessible to children and pets. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Not for use or storage in or around the home.

**PESTICIDE DISPOSAL:** Do not contaminate water, food, or feed by storage or disposal. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: For Plastic Containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. For Metal Containers (non aerosol): Triple rinse (or equivalent) the container. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

**NOTICE TO BUYER--**Purchase of this material does not confer any rights under patents of countries outside of the United States.

FMC and STEWARD® are trademarks or registered trademarks of FMC Corporation or an affiliate.

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#### CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

Notice: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions beyond the control of FMC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and, to the extent consistent with applicable law, Buyer and User agree to hold FMC and Seller harmless for any claims relating to such factors.

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, FMC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT. Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) Seller or FMC, and, to the extent permitted by applicable law, Buyer assumes the risk of any such use.

To the extent consistent with applicable law, FMC or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF FMC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF FMC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

This Condition of Sale and Limitation of Warranty and Liability may not be amended by any oral or written agreement.