

U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Posticide Program tration Division (H7505C) 401 "M" St., S.W.

Washington, D.C. 20460

EPA Rog. Number:

352-598

October 30, 2000

Term of Insuance: Conditional

STEWARD™ Insecticide

NOTICE OF PESTICIDE:

x Registration

Agricultural

(under FIFRA, as amended)

Reregistration

Name and Address of Registrant (include ZIP Code):

Products

Wilmington, DE 19880-0030

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Funcicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(C), provided that you submit the following data and label revisions:

- 1. Submit and/or cite all data required for registration/registration review of your product when the Agency requires all registrants of similar products to submit such data.
- 2. Submit the following information to satisfy the data gaps in the data base for Indoxacarb (and its Renantiomer) . The following information is required within 15 months of the date of this Notice:

Product Chemistry Data

- 830.1550 product identity and composition
- 830.1600 description of materials used to produce the product
- 830.1620 description of production process
- 830.1650 description of formulation process
- 830.1670 discussion of formation of impurities
- 830.6313 stability to normal, elevated temperatures, metal ions, metals
- Submit the following information to satisfy the data gaps in the data base for Indoxacarb (and its Renantiomer). The following information is required within 2 years of the date of this Notice:
 - a. Toxicology Data
 - 870.6300 developmental neurotoxicity study in the rat (due to neurotoxicity concerns, not developmental concerns)
 - 870.3465 90-day inhalation toxicity study in the rat (contact OPP/HED to be certain of the protocol before commencing testing.)

.continued on page 2

Approving Official:

EPA form 8570-6 (EPA reg. No.352-598) continued from page 1...

- b. Residue Chemistry Data
 - revised Section B's and Section F's
 - 860.1480 poultry feeding study
 - 860.1340 confirmatory method for plants
 - 860-1340 specificity testing for analytical methods for plants
 - 860.1380 storage stability data reflecting the maximum frozen storage intervals of cotton processed samples.
- c. Environmental Fate Data: The basic data requirements have been satisfied for these guideline studies; however, additional elucidation of the degradates are necessary which are not part of the core requirements.
 - photodegradation in water
 - hydrolysis
 - · aerobic soil metabolism
 - · anaerobic aquatic metabolism
 - aerobic aquatic metabolism
 - leaching-adsorption/desorption
 - terrestrial field dissipation
 - accumulation in fish

For additional details on the data requirements refer to the corresponding Data Evaluation Records (DERs) and risk assessments.

- Make the following label changes before you release the product for shipment:
 - a. Revise the EPA Registration number to read. "EPA Reg. No. 352-598".
 - b. Delete the paragraph: "DuPont STEWARDTM Insecticide should be used only in accordance with recommendations on this label or in separate DuPont supplemental labeling available through local dealers."
- 5. Submit two (2) copies of your final printed label for before your release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product bearing amended labeling constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

A stamped copy of the label is enclosed for your records. If you have any questions regarding this action, please contact Jane Smith on 703/305-7378.

Kerry Leifer, Acting Chief

Insecticide-Rodenticide Branch Registration Division (7504C)



Steward[™]

insecticide

Suspension Concentrate

Contains 1.25 lbs. Active Ingredient per gallon.

Active Ingredient
Indoxacarb
(S)-methyl 7-chloro-2,5-dihydro-2-[[(methoxy-carbonyl)[4(trifluoromethoxy)phenyl]amino]-carbonyl]indeno[1,2-e][1,3,4]oxadiazine-4a-(3H)-carboxylate

Inert Ingredients

TOTAL

By Weight

15%

85%

EPA Reg. No. 352-598

NET CONTENTS: _____

Establishment No.: 34704-MS-2

PRECAUTIONARY STATEMENTS KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID

Have label with you when obtaining treatment advice. IF SWALLOWED:

- Call a poison control center, doctor or 1-800-441-3637 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.

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, doctor, or 1-800-441-3637 immediately for treatment advice.

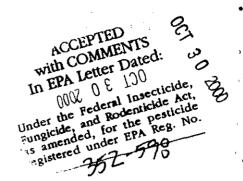
IF ON SKIN OR CLOTHING:

- · Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center, doctor, or 1-800-441-3637 immediately for treatment advice.

IF INHALED:

- · Remove victim to fresh air.
- If not breathing, give artificial respiration, preferably mouth-to-mouth.
- If breathing is difficult, give oxygen. Get medical attention.

For medical emergencies involving this product, call toll-free 1-800-441-3637.



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

Applicators and other handlers must wear:

Long-sleeved shirt and long pants.

Waterproof gloves.

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 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 curing 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, waterproof gloves.

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

GENERAL INFORMATION

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

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

Do not apply this product through any type of irrigation system.

Always shake well before use.

INTEGRATED PEST MANAGEMENT

This product should be used as part of an Integrated Pest Management (IPM) program which can include biological, cultural, and genetic practices aimed at preventing economic pest damage. Application of this product should be based on IPM principles and practices including field scouting or other detection methods, correct target pest identification, population monitoring, 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 threshold levels for treating specific pest/crop systems in your area.

BENEFICIAL ARTHROPODS

Other than reducing the target pest species as a food source, STEWARDTM helps conserve certain beneficial arthropods, including parasitic wasps, predatory beetles, 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 should 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. When this occurs, the recommended dosages fail to suppress the pest population below the economic threshold. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. These strategies may include incorporation of cultural and biological control practices, alternation of active classes of insecticides on succeeding generations and targeting the most susceptible life stage. Consult your local agricultural authorities for details.

APPLICATION

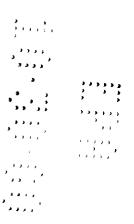
Apply at the recommended rates when insect populations reach locally determined economic thresholds. Consult the cooperative extension service, professional consultants or other qualified authorities to determine appropriate threshold levels for treatment in your area.

STEWARD $^{\text{\tiny{TM}}}$ applications should target eggs and small instar larvae.

Follow-up treatments of STEWARDTM should be applied, as needed, to keep pest populations within threshold limits. STEWARDTM 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 2 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
Cotton	Cotton Bollworm ¹ Tobacco Budworm ¹	0.11	11.3	11.5	14	12 hrs.
	Cotton Bollworm in Transgenic Bt Cotton	0.09 - 0.11	9.2 - 11.3	14 - 11.5		
	Beet Armyworm Fall Armyworm	0.09 - 0.11	9.2 - 11.3	14 - 11.5		
	Cabbage Looper Soybean Looper	0.065 - 0.09	6.7 - 9.2	19 - 14		
	Tarnished Plant Bug ² Cotton Fleahopper ² Lygus Bugs (Western U.S	0.09 - 0.11	9.2 - 11.3	14 - 11.5		
	The minimum interval between treatments is 5 days. Do not apply more than 45 fl. oz. STEWARD TM (0.44 lb. a.i.) per acre per crop. Cotton Bollworm and Tobacco Budworm - For the most effective control, applications of STEWARD TM should be made when the majority of the population is within the time of blackhead egg stage to larvae 1/8 inch length or less. Tarnish Plant Bug and Cotton Fleahopper - A single application of STEWARD TM will provide control of light to moderate populations of tarnished plant bug or cotton fleahopper. Heavy populations of tarnished plant bug or cotton fleahopper may require multiple applications. Suppression only.					

SPRAY PREPARATION

Spray equipment must be clean and free of previous pesticide deposits before applying STEWARDTM. Fill spray tank 1/4 to 1/2 full of water. Add STEWARDTM 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.

This product can be mixed with pesticide products labeled for use on cotton in accordance with the most restrictive of label limitations and precautions. No label dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing.

<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, pear, broccoli, cabbage, cauliflower, tomato, pepper (bell and non-bell), lettuce (head and leaf varieties), and sweet corn 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.

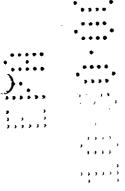
STORAGE: Do not subject to temperatures below 32 degrees F. Store product in original container only in a location inaccessible to children and pets. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Not for use or storage in or around the home.

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: Triple rinse (or equivalent) the container. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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

D-714 103000a



LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read This 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.

It is impossible to eliminate all risks associated with the use of this product. Such risks arise from weather conditions, soil factors, off target movement, unconventional farming techniques, presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of DuPont. These risks can cause: ineffectiveness of the product; crop injury, or; injury to non-target crops or plants.

DuPont does not agree to be an insurer of these risks. WHEN YOU BUY OR USE THIS PRODUCT, YOU AGREE TO ACCEPT THESE RISKS.

DuPont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purpose stated in the Directions for Use, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions.

DUPONT MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

IN NO EVENT SHALL DUPONT OR SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUEN-TIAL OR SPECIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. BUYER'S OR USER'S BARGAINED-FOR EXPECTA-TION IS CROP PROTECTION. THE EXCLUSIVE REMEDY OF THE USER OR BUYER AND THE EXCLUSIVE LIABILITY OF DUPONT OR SELLER, FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY OR CONTRACT, NEGLI-GENCE, TORT OR STRICT LIABILITY), WHETHER FROM FAILURE TO PERFORM OR INJURY TO CROPS OR OTHER PLANTS, AND 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 DUPONT OR SELLER, THE REPLACEMENT OF THE PRODUCT.

DuPont or its Ag Retailer must have prompt notice of any claim so that an immediate inspection of buyer's or user's growing crops can be made. Buyer and all users shall promptly notify DuPont or a DuPont Ag Retailer of any claims, whether based on contract, negligence, strict liability, other tort or otherwise or be barred from any remedy.

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

For product information call: 1-888-6-DUPONT Internet address: www.dupont.com/ag/us

© 2000 E. I. du Pont de Nemours and Company, Agricultural Products, Wilmington, Delaware 19898