



# DuPont™ Steward® eVo insecticide

## Technical Information

### Active Ingredient:

150 g/L INDOXACARB in the form of an emulsifiable concentrate.

### Pack Sizes:

1 L

5 L

GROUP	<b>22A</b>	INSECTICIDE
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### HARMFUL

Keep out of reach of children

### ECOTOXIC

FOR CONTROL OF DIAMONDBACK MOTH AND CABBAGE WHITE BUTTERFLY IN VEGETABLE BRASSICAS, AND SOYBEAN LOOPER CONTROL IN LETTUCE.

Registered pursuant to the ACVM Act 1997 No. P9271

See [www.foodsafety.govt.nz](http://www.foodsafety.govt.nz) for registration conditions.

Approved pursuant to the HSNO Act 1996 Code HSR000583

READ LABEL BEFORE MIXING AND APPLYING

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### HAZARD CLASSIFICATION

6.1D, 6.5B, 6.9A, 9.1D, 9.3C, 9.4A

### APPROVED HANDLER

This product must be under the control of an approved handler during use. Use of this product in any manner contrary to this label may be an offence under the HSNO Act.

**HARMFUL** - Keep out of reach of children. May be harmful if swallowed, inhaled or absorbed through the skin. May cause sensitisation from prolonged skin contact. Toxic, may cause damage to the Hematopoietic system from repeated oral exposure at high doses.

**ECOTOXIC** - Harmful to aquatic organisms. Avoid contamination of water supply with product or empty container. Harmful to terrestrial vertebrates. Very toxic to terrestrial invertebrates. **DO NOT** allow spray drift outside the target area.

**Bee Safety:** This product is toxic to bees exposed to direct treatment on blooming crops and weeds. Apply to blooming crops or crops with blooming weeds only when bees are not active, preferably after daily bee flight. Avoid spray drift to off-field bee-attractive habitats.

### PRECAUTIONS

Keep out of reach of children. Avoid breathing dust or spray mist. **DO NOT** eat, drink or smoke while using. When mixing or applying wear appropriate protective clothing such as waterproof gloves, hat, overalls, and footwear. Wash hands and face before meals and after work.

Wash splashes of concentrate from skin and eyes immediately.

Store in original container, tightly closed and under lock and key. **DO NOT** store with Class 1, 2, 3.2, 4 or 5 substances or feed, seeds or foodstuffs. Stores containing more than 100 kg of this product require secondary containment and are subject to signage. When stored appropriately, this product should show no significant degradation for 2 years from the date of manufacture. Contact your supplier for further information about the use of any product that is older than this.

### DISPOSAL

Container disposal: Triple rinse container and add rinsate to spray tank. Burn, if circumstances, especially wind direction permit, otherwise bury in an approved landfill. **DO NOT** reuse container. Dispose of this product only by using according to this label. Always follow local authority requirements.

### FIRST AID

If swallowed **DO NOT** induce vomiting. For advice contact the National Poisons Centre 0800 POISON (0800 764766) or a doctor immediately. If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If splashed in eyes, wash out immediately with water.

### SPILLAGE

Wear appropriate protective clothing. Exclude all bystanders from vicinity of the spill. Contain liquid spills and prevent the substance from entering waterways. Absorb spills with inert material and place in waste containers labelled for disposal. Wash area with water and detergent, absorb with further inert material and dispose of waste material in an approved landfill.

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## GENERAL INSTRUCTIONS

DuPont Steward® eVo insecticide is an oxadiazine insecticide in the form of an emulsifiable concentrate. DuPont Steward® eVo insecticide is to be mixed in water and applied as a foliar spray for control of diamondback moth and cabbage white butterfly in vegetable brassicas, and soybean looper in outdoor lettuce. DuPont Steward® eVo insecticide should be applied after careful field monitoring of pest populations of eggs and larvae to determine the need for application, the correct timing of the initial application and of any subsequent applications.

DuPont™ Steward® eVo insecticide has been specifically designed for use in Integrated Pest Management programs. The active ingredient, indoxacarb enters larvae primarily by ingestion of treated foliage, or through penetration of the insect cuticle. After ingesting indoxacarb, the larvae cease feeding and die three to five days later. DuPont™ Steward® eVo insecticide does not give traditional larval “knockdown” control.

## INSECT RESISTANCE WARNING

DuPont™ Steward® eVo insecticide contains indoxacarb, a Group 22A insecticide. Unless directed otherwise in the specific crop/insect sections of the label, the following practices are recommended to prevent or delay the development of insecticide resistance to DuPont™ Steward® eVo insecticide and to Group 22A insecticides;

- Apply DuPont™ Steward® eVo insecticide or other Group 22A insecticides using a “window” approach to avoid exposure of consecutive insect pest generations to the same mode of action. Multiple successive applications of DuPont™ Steward® eVo insecticide are acceptable if they are used to treat a single insect generation.
- Following a “window” of DuPont™ Steward® eVo insecticide or other Group 22A insecticide, rotate to a “window” of applications of effective insecticides with a different mode of action.
- The total exposure period of all “Group 22A-active windows” applied throughout the crop cycle (from seedling to harvest) should not exceed 50% of the crop cycle.
- Incorporate IPM techniques into the overall pest management program.
- Monitor insect populations for loss of field efficacy.

DuPont™ Steward® eVo insecticide may be subject to alternative resistance management strategies, refer to <http://resistance.nzpps.org> for specific pest strategies.

If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local farm chemical supplier, consultant, or local DuPont representative for the best alternate method of control for your area.

Since the occurrence of resistant individuals is difficult to detect prior to use DuPont accepts no liability for any losses that may result from the failure of DuPont™ Steward® eVo insecticide to control resistant insects.

For additional information on insect resistance, modes of action and monitoring visit the Insecticide Resistance Action Committee (IRAC) on the web at <http://www.irac-online.org>.

## MIXING INSTRUCTIONS

Spray equipment must be clean and free of previous pesticide deposits before applying DuPont™ Steward® eVo insecticide. Fill spray tank ¼ to ½ full of water. Measure the amount of DuPont™ Steward® eVo insecticide required for the area to be sprayed. Add DuPont™ Steward® eVo insecticide directly to the spray tank with the agitation engaged. Mix thoroughly to disperse the insecticide. Once dispersed, the material must be kept in suspension at all times by continuous agitation. Use mechanical or hydraulic means, **DO NOT** use air agitation, premix or slurry.

Use the prepared spray immediately. If unforeseen conditions prevent immediate use of the DuPont™ Steward® eVo insecticide spray mix, the mix may be stored up to 72 hours. Before use, thoroughly agitate the spray mix until fully resuspended. Mixtures containing DuPont™ Steward® eVo insecticide should not be stored.

## COMPATIBILITY

DuPont™ Steward® eVo insecticide is compatible with many commonly used fungicides, liquid fertilisers, herbicides, insecticides, and biological control products. However, since the formulations of products are always changing, it is advisable to test the physical compatibility of desired tank mixes and check for adverse effects like settling out or flocculation. To determine the physical compatibility, add the recommended proportions of the tank mix products to water, mix thoroughly and allow to stand for 20 minutes. If the combination remains mixed, or can be re-mixed readily, it is considered physically compatible. Avoid complex tank mixtures of several products or very concentrated spray mixtures.

The crop safety of all potential tank-mixes, including additives and other pesticides, on all crops has not been tested. Before applying any tank-mixture not specifically recommended on this label or other DuPont supplemental labelling, the safety to the target crop must be confirmed. To test for crop safety, apply the combination to a small area of the target crop in accordance with the label instructions to ensure that a phytotoxic response will not occur.

The mixing sequence recommended is: water-soluble bags, water-soluble granules, dry flowable or water-dispersible granules, wettable powders, water-based suspension concentrates, water-soluble concentrates, suspo-emulsions, oil-based suspension concentrates, emulsifiable concentrates (e.g. DuPont™ Steward® eVo insecticide), adjuvants and surfactants, soluble fertilisers and drift retardants.

## **APPLICATION**

### **Ground application**

Use enough water to ensure thorough coverage of the crop. Adjust water volumes to crop stage (200 – 800 L/ha).

Application equipment should be calibrated to apply at least sixty (60) droplets per cm<sup>2</sup> of target foliage. Droplet VMD should be of medium spray quality.

Use a boom sprayer fitted with high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets. Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size, DOES NOT improve canopy penetration and may increase drift potential. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE. 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. When applying DuPont™ Steward® eVo insecticide by ground application, keep the boom low to avoid spray drift.

### **Minimising Spray Drift**

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator must consider all these factors when making application decisions. The most effective way to reduce drift potential and maintain efficacy is to apply a volume mean diameter (VMD) 285 - 300 microns.

**DO NOT** apply when wind speed is less than 3 or more than 20 kilometres per hour at the application site.

**DO NOT** apply by air.

### **SPRAY EQUIPMENT 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 CULTIVARS NOT TESTED**

Not all varieties, cultivars or hybrids of crops have been individually tested for crop safety. It is not possible to evaluate for crop safety all applications of DuPont™ Steward® eVo insecticide on all varieties, cultivars, or hybrids, or under all environmental conditions and growing circumstances. To test for crop safety, apply the product in accordance with the label instructions to a small area of the target crop to ensure that a phytotoxic response will not occur, especially where the application is a new use of the product by the applicator.

## **RESTRICTED ENTRY INTERVAL (REI)**

**DO NOT** allow entry into treated areas until the spray has dried. When prior entry is necessary, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and elbow length chemical resistant gloves. Clothing must be washed after each day's use.

## **RECORD KEEPING**

Records of use, as described in The New Zealand Management of Agrichemicals (NZS8049) must be kept.

## **SAFETY DATA SHEET**

Additional information is available in the Safety Data Sheet for the product, this is available from [www.cropprotection.dupont.co.nz](http://www.cropprotection.dupont.co.nz)

## **NOTICE TO BUYER**

DuPont warrants that this product conforms to the chemical description on the label thereof and if reasonably fit for purposes stated on such label only when used in accordance with directions under normal use conditions. 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 weather conditions, presence of other materials, or the manner of use of application, all of which are beyond the control of DuPont. To the extent permitted at law, DuPont shall not be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the buyer.

**TO THE EXTENT PERMITTED AT LAW, DUPONT MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.**

## DIRECTION FOR USE

It's an offence to use this product on animals

**DO NOT** apply if rain is expected within 2 hours of application, or if heavy dew is present on crops.

CROP	PEST	RATE	CRITICAL COMMENTS
Cabbage, Cauliflower, Broccoli, Brussels sprouts	Diamond back moth ( <i>Plutella xylostella</i> )	500 mL/ha	Apply at the first sign of insect presence and repeat at 7 - 14 day intervals. Alternatively monitor insect populations and apply when economic thresholds are reached.
	Cabbage white butterfly ( <i>Pieris rapae</i> )		<u>Resistance management:</u> <b>DO NOT</b> apply more than 2 sequential applications, and/or more than 4 applications in any one crop.
Head Lettuce (outdoors)	Soybean looper ( <i>Thysanoplusia orichalcea</i> )		Apply at 7 - 14 day intervals or on monitoring thresholds.  <u>Resistance management:</u> <b>DO NOT</b> apply more than 2 sequential applications, and/or more than 4 applications in any one crop.

It is an offence for users of this product to cause residues exceeding the relevant MRL in the Food Notice: Maximum Residue Levels for Agricultural Compounds.

### Withholding period

**Vegetable Brassicas and Head Lettuce (outdoors): DO NOT** apply within 3 days of harvest.

**TRADE ADVICE EXPORT STATEMENT:** Suitable Maximum Residue Limits (MRLs) or Import tolerances for produce treated with DuPont™ Steward® eVo insecticide may not be established in some countries. Consult with your exporter or DuPont before applying DuPont™ Steward® eVo insecticide to crops from which produce is to be exported

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