



Transform™

Isoclast™ active

INSECTICIDE

ACTIVE INGREDIENT: Contains 240 g/litre sulfoxaflor in the form of a suspension concentrate

GROUP 4C INSECTICIDE

For the control of aphids and other insect pests in wheat, barley, forage brassicas, and vegetable crops as specified in the Directions for Use.

READ THIS LABEL COMPLETELY BEFORE MIXING OR APPLYING

Dow AgroSciences (NZ) Ltd
89 Paritutu Road, Private Bag 2017, New Plymouth 4342
www.corteva.co.nz
Telephone 0800 803 939

HAZARD CLASSIFICATION: 6.9A, 9.1B, 9.2A, 9.4A

APPROVED HANDLER

This product must be under the personal control of an approved handler when:

- a) applied in a wide dispersive manner; or
- b) used by a commercial contractor.

RECORD KEEPING

Records of use, as described in relevant HSNO Act regulations and The New Zealand Standard for the Management of Agrichemicals (NZS8409), must be kept if more than 3L of **TRANSFORM** is applied, or discharged within 24 hours in a place where members of the public may be present or where the substance may enter air or water and leave the place.

TOXICITY

MAY CAUSE ORGAN DAMAGE FROM REPEATED ORAL EXPOSURE AT HIGH DOSES.

ECOTOXICITY

TOXIC TO AQUATIC ORGANISMS. **DO NOT** contaminate any water supply or aquatic environment with product or empty container. **DO NOT** spray over, or allow to drift over an aquatic environment. **DO NOT** apply onto, over or into water.

VERY TOXIC TO THE SOIL ENVIRONMENT. **DO NOT** allow drift outside the target area to occur. Collect spillage.

VERY TOXIC TO TERRESTRIAL INVERTEBRATES. This product is toxic to bees. **DO NOT** apply this product in areas where bees are currently foraging or to any plant or tree likely to be visited by bees:

- (a) at the time of application; or
- (b) before the spray has dried following application.

HANDLING PRECAUTIONS

EQUIPMENT

Apply using accurately calibrated and maintained equipment in accordance with The New Zealand Standard for the Management of Agrichemicals (NZS8409).

Flush equipment thoroughly with clean water after use according to Cleaning Spray Equipment instructions below. Dispose of cleaning water according to the Disposal instructions below.

STORAGE

Store in original container tightly closed and in a locked, dry, cool, well-ventilated area, away from foodstuffs. Storage must be generally in accordance with The New Zealand Standard for the Management of Agrichemicals (NZS8409).

Stores containing more than 100L of **TRANSFORM** (or substances of the same hazard class) require containment, emergency response plans and are subject to signage. See the Hazardous Substances Emergency Management Regulations 35 – 41 and NZS8409 for further information.

PERSONAL PROTECTION

Avoid contact with the eyes. When opening the container and preparing the product for use and using the product, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. **DO NOT** eat, drink or smoke while using. Remove protective clothing immediately after handling this product and wash hands and face before meals and after work.

SPILLAGE

DO NOT touch or walk through spilled material. Wear the protective equipment recommended above. Stop any leaks when safe to do so. Dam the area and prevent entry into waterways and drains. **Small spills/leaks:** Absorb with a proprietary absorbent suitable for chemical spills or inert material such as sand, soil or sawdust. Collect spilled product and place in a sealable container for disposal. Spill residues may be cleaned using water and detergent. Contain and absorb wash water for disposal. Absorb and collect washings and place in the same sealable container for disposal. Seek advice from the SDS, product label or Corteva Agriscience regarding disposal. **Large spills/leaks:** Dam the area of large spills and report them to Corteva Agriscience Emergency Services at 0800 844 455.

DISPOSAL

Triple rinse empty containers and add rinsate to spray tank. Triple rinsed containers containing the **Agrecovery** logo on the label, and that are free of all residues (liquid and dry) and have an intact legible label should be taken to an Agrecovery container collection site. Otherwise crush or puncture and bury in a suitably approved landfill.

DO NOT burn empty containers.

Dispose of the product only by using according to the label, via Agrecovery (visit www.agrecovery.co.nz or call 0800 AGRECOVERY (247 326) for information about the type and quantity of chemical acceptable for disposal), or at an approved landfill. **DO NOT** burn.

Dispose of unused spray mix and equipment cleaning water onto non-grazed and non-cropped ground away from edible and flowering plants, or use in future spray applications if possible (see storage of diluted spray mix).

DO NOT dispose of this product; spray mix or equipment cleaning water down drains or sewers.

FIRST AID

If swallowed, **DO NOT** induce vomiting, give a glass of water. If exposed, or if you feel unwell, contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor immediately. If skin irritation occurs get medical attention. If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.

TRANSPORT

This product may be carried on a passenger service vehicle.

SAFETY DATA SHEET

A Safety Data Sheet for **TRANSFORM** is available from Corteva Agriscience on request. Call Customer Service Toll Free on 0800 803 939.

RE-ENTRY

DO NOT allow entry into treated areas until the spray has dried. If prior entry is necessary, wear personal protective equipment as described above.

NOTICE

Important: You must read the warning and conditions given on this label. If they are not acceptable, or if you are in doubt as to the proper handling of this product (including its transport, storage, use, disposal and requirements for approved handlers [if applicable]) then return the unopened product to the supplier at once.

Warning: This product is subject to controls and could be hazardous if handled incorrectly. The **user is responsible** for ensuring that the handling of this product is in accordance with the law (including the *Hazardous Substances and New Organisms Act 1996* and the *Agricultural Compounds and Veterinary Medicines Act 1997*) and with the directions provided. The Registrant declines all liability (whether in contract, tort (including but not limited to negligence), or otherwise) to the maximum extent permitted by law in relation to the handling of this product in a manner which is contrary to the directions given or to any applicable Acts, Regulations or Guidelines.

Further information regarding the applicable Acts, Regulations and Guidelines for the proper handling of this product may be obtained by contacting EPA New Zealand (www.epa.govt.nz) or the Ministry for Primary Industries (MPI) (www.foodsafety.govt.nz).

This product is warranted to contain the specified active ingredients within accepted analytical tolerance when packed.

DIRECTIONS FOR USE

It is an offence to use this product on animals.

MIXING

- Agitate or shake the container immediately prior to use.
- Half fill the spray tank with water; add the appropriate amount of accurately measured **TRANSFORM**, then completely fill the tank.
- Ensure thorough agitation by mechanical or hydraulic action at all times during mixing and application.
- Use only clean water within the range pH 5-9 to dilute **TRANSFORM**.

STORAGE OF DILUTED SPRAY MIX

Whenever possible, the spray mix should be used immediately after it is prepared. However, if weather conditions or mechanical breakdown prevent immediate use, the spray mix may be stored for up to 72 hours without loss of activity. To prevent sedimentation, ensure that the stored spray mix is thoroughly agitated at least once every 8 hours during storage and thoroughly agitated prior to application after storage. The spray mix must be stored out of direct sunlight.

APPLICATION

Thorough coverage of the crop is essential. Ensure this by increasing water volume with plant growth stage. Avoid high temperatures, strong winds, inversion conditions, imminent rain or any conditions that may reduce the quality of spray coverage or result in drift from the target area. Techniques to minimise drift should be employed at all times. See The New Zealand Standard for the Management of Agrichemicals (NZS8409).

For optimum results follow the application directions below:

Ground Spraying (vegetable crops, forage brassicas): Apply in a minimum of 250 L/ha of water. Increase spray volumes as the crop grows.

Ground Spraying (wheat and barley): Apply in a minimum of 100 L/ha of water. Increase spray volumes as the crop grows.

Aerial Spraying (wheat and barley, forage brassicas): Apply in a minimum of 50 L/ha of water.

Spray Drift:

DO NOT apply by air or ground with spray droplets smaller than a MEDIUM spray droplet size category according to nozzle manufacturer specifications that refer to the ASABE S-572 Standard or the BCPC Guideline.

DO NOT apply if there are aquatic and wetland areas, including aquaculture ponds, surface streams and rivers, downwind from the application area and within the recommended no-spray zones below:

Aerial application: 20 metres

Ground application: 5 metres (all crops).

WETTING AGENTS

Not all wetting agents or adjuvants are of equal quality. Corteva Agriscience only recommends use of reputable non-ionic wetting agents with a proven history of safe use on crops such as Actiwett®, Spreadwet 1000 and Contact™ Xcel. Consult Corteva Agriscience for further advice.

Actiwett® Trademark of Loveland Inc.

Contact™ Xcel Trademark of Nufarm Limited

Spreadwet is a trademark of SST New Zealand Ltd

COMPATIBILITY

If intending to tank mix **TRANSFORM** with other agricultural chemicals or plant nutrients consult Corteva Agriscience.

CLEANING SPRAY EQUIPMENT

After using **TRANSFORM**, empty the tank and completely drain the system. Rinse the tank, pumps, lines, hoses, filters and nozzles by circulating clean water through the system. Drain and repeat the rinsing procedure twice.

RAINFASTNESS

Rain can wash **TRANSFORM** from treated plant surfaces and result in reduced insect control. Avoid making spray applications if rain is expected before the spray can dry completely.

WITHHOLDING PERIODS

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

Wheat and Barley

DO NOT apply after growth stage BBCH59 (end of heading: inflorescence fully emerged)

Wheat and Barley fodder or green feed **DO NOT** graze or cut for feed for 28 days after the last application

Wheat and Barley grain and straw No WHP is required when the product is used as directed.

Vegetable crops

DO NOT allow livestock to graze treated vegetable paddocks after harvest.

Cucurbits field-grown only (excluding pumpkins and winter squash) **DO NOT** harvest for 1 day after the last application.

Fruiting vegetables (excluding sweet corn and mushrooms) **DO NOT** harvest for 1 day after the last application.

Leafy vegetables **DO NOT** harvest for 3 days after the last application.

Vegetable brassicas **DO NOT** harvest for 3 days after the last application.

Root and tuber vegetables **DO NOT** harvest for 7 days after the last application.

Forage Brassicas

Meat **DO NOT** graze the treated crop until 14 days (2 weeks) after application. In addition, animals must be held for 4 days on an untreated feed prior to sending for slaughter.

Milk **DO NOT** graze animals for milk within 28 days (4 weeks) after application.

RESISTANCE MANAGEMENT

GROUP 4C INSECTICIDE

TRANSFORM is a sulfoxamine insecticide (Group 4C). The mode of action is that of nicotinic acetylcholine receptor agonists. Some naturally occurring individual insects may be resistant. With excessive use of the same insecticide group over time, these resistant insects may dominate in the population resulting in loss of control. To maximize the effectiveness of insecticides, and to prevent resistance, products containing alternate modes of action should be used in the spray program. Consult www.resistance.nzpps.org/ for alternate modes of action and the details of resistance management strategies (if any) for the crops listed on the label.

TABLE 1 WHEAT AND BARLEY

DO NOT make more than 2 applications per crop in any one season.

Monitor crop for pest species by regular field scouting. Target sprays against insect populations when they exceed threshold level

CROP	PEST	RATE (ml/ha)	CRITICAL COMMENTS
Barley, Wheat	Aphids (including cereal aphid vectors of Barley Yellow Dwarf Virus (Oat aphid and Corn aphid), Grain aphid and Rose-grain aphid)	50-100 + wetting agent	Apply initially at any stage up to crop flag leaf fully unrolled (BBCH 39). If needed, a second application can be made, with a minimum interval of 14 days between applications. DO NOT apply after BBCH 59. Use the higher rate under heavy aphid infestations and/or when water volume is reduced, such as with aerial application. Some species of aphids tend to infest cereal plants at the base of the plant, often inside the leaf sheath and below the soil surface. These entrenched aphids at the base of the plant may not be adequately controlled by TRANSFORM
Addition of a wetting agent may improve control under less than ideal application conditions. Use the wetter according to label directions, see Wetting Agents section.			

TABLE 2 VEGETABLE CROPS

DO NOT make more than 4 applications per crop in any one season.

Apply when pest thresholds are exceeded at not less than 14-day intervals.

Monitor crops for pest species by regular field scouting. Target sprays against insect populations when they exceed threshold level.

CROPS	PEST	RATE (ml/ha)	CRITICAL COMMENTS
Cucurbits , field-grown only [excluding pumpkins and winter squash]	Aphids (including green peach aphid, Melon (cotton) aphid)	200 – 300	Use higher rate under heavy aphid infestations or if longer residual control is required.
	Greenhouse whitefly	400	Ensure accurate species identification.
Fruiting vegetables , including chilli, capsicum, eggplant, okra and tomatoes [excluding sweet corn and mushrooms]	Aphids (including green peach aphid)	200 – 300	Use higher rate under heavy aphid infestations or if longer residual control is required.
	Greenhouse whitefly	400	Ensure accurate species identification.
Leafy vegetables , including lettuce (all varieties), Asian greens, silver beet and spinach	Aphids (including green peach aphid and brown sowthistle aphid) [excluding lettuce aphid]	200–300	Use higher rate under heavy aphid infestations or if longer residual control is required.
	Greenhouse whitefly	400	Ensure accurate species identification.
Root and tuber vegetables , including potatoes and carrots	Aphids (including green peach aphid)	200–300	Use higher rate under heavy aphid infestations or if longer residual control is required.
Vegetable brassicas , including Asian greens, broccoli, Brussels sprouts, cabbage and cauliflower	Aphids (including cabbage aphid and green peach aphid)	200–300 (+ wetting agent)*	Use higher rate under heavy aphid infestations or if longer residual control is required
	Greenhouse whitefly	400 (+ wetting agent)*	Ensure accurate species identification
* Addition of a wetting agent may improve control under less than ideal application conditions. Use the wetter according to label directions, see Wetting Agents section			

TABLE 3 FORAGE BRASSICAS

DO NOT make more than 2 applications per crop in any one season.

Monitor crop for pest species by regular field scouting. Target sprays against insect populations when they exceed threshold levels.

CROP	PEST	RATE (mL/ha)	CRITICAL COMMENTS
Forage brassicas	Aphids (including green peach aphid and cabbage aphid)	100 + wetting agent	Apply at any stage of crop. If needed, a second application can be made, no less than 14 days later. Tank mix with Sparta insecticide for control of diamondback moth, white butterfly and looper caterpillars as well as leafminer and springtails.
Addition of a wetting agent may improve control under less than ideal application conditions. Use the wetter according to label directions. See Wetting Agents section.			

Registered pursuant to the ACVM Act 1997, No P8535

See www.foodsafety.govt.nz for registration conditions

Approved pursuant to HSNO Act 1996, EPA Approval Code HSR100901

See www.epa.govt.nz for approval controls

Registered to:**Dow AgroSciences (NZ) Ltd**

89 Paritutu Road, Private Bag 2017, New Plymouth 4342

www.corteva.co.nz

Telephone 0800 803 939

®,™ Trademarks of Dow AgroSciences, DuPont or Pioneer and their affiliated companies or respective owners.

EMERGENCY RESPONSE

(All hours)

Ring from anywhere in New Zealand

0800 844 455 or

Globally +64 6 751 2407

IN A TRANSPORT EMERGENCY

DIAL 111

FOR POLICE OR FIRE

GMID: 11038600 08/19