RESTRICTED USE PESTICIDE
Due to toxicity to aquatic invertebrate animals.
For retail sale to and use only by Certified Applicators, or persons under their direct supervision, and only for those uses covered by the Certified applicator's certification.

Dimilin® 4L

INSECT GROWTH REGULATOR
FOR USE ON TREES AND SHRUBS
SUSPENSION CONCENTRATE

COMPOSITION

Active Ingredient: (% by weight)	
Diflubenzuron N-[[(4-Chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide*	40.4%
Inert Ingredients:	59.6%
TOTAL	100.0%

*Contains 4 lbs. diflubenzuron per gallon

Net contents:
2.5 gallons

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
IF ON SKIN OR CLOTHING	• **Take off contaminated clothing.** • **Rinse skin immediately with plenty of water for 15 to 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 mouth-to-mouth, if possible.** • **Call a poison control center or doctor for further treatment advice.**

EMERGENCY ASSISTANCE: Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

EMERGENCY PHONE	**203-723-3670**
SAFETY DATA AND INFORMATION	**866-430-2775**
TRANSPORTATION EMERGENCY (CHEMTREC)	**800-424-9300**

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if absorbed through skin or inhaled. Avoid contact with eyes, skin or clothing. Avoid breathing spray mist.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and Other Handlers Must Wear: Long-sleeved shirt and long pants; shoes plus socks; chemical-resistant gloves, (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, PVC or viton) when mixing and loading and **also using handheld equipment**.

USER SAFETY REQUIREMENTS

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

Chemtura

Chemtura Corporation
199 Benson Road
Middlebury, CT 06749

EPA REG. NO. 400-474
EPA EST. NO.
019/010408

ENGINEERING CONTROLS

When handlers use closed systems (including water soluble bags), enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should **wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.**

Users should remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic invertebrates. For terrestrial uses, do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift or runoff from treated areas may be hazardous to aquatic invertebrate organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

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 except as provided in the Quarantine Programs section of this label.

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.

PPE required 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, is:

- coveralls
- chemical-resistant gloves made of any waterproof material.
- shoes plus socks.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter or allow others to enter the treated area until sprays have dried.

STORAGE AND DISPOSAL

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

STORAGE: Store in a dry location.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Triple rinse or equivalent. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

GENERAL INSTRUCTIONS AND INFORMATION

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

SPRAY DRIFT LABELING

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator is responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.

2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. 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 Temperature Inversions).

Controlling Droplet Size

Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

- Pressure - Do not exceed the nozzle manufacture's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

- Number of nozzles - Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- 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. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Boom Length
For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height
Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment
When applications are made with a cross-wind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for the displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.)

Wind
Drift potential is lowest between wind speed of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

Temperature and Humidity
When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are hot and dry.

Temperature Inversions
Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures 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 an inversion, while smoke that moves upwards and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas
The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

GENERAL INFORMATION

DIMILIN 4L is an insect growth regulator which is effective on a wide variety of insect pests, predominately from the families Lepidoptera and Diptera. Because of its mode of action, which results in a disruption of the normal molting process of the insect larvae, the action of DIMILIN is slow and several days may elapse before the full effect is seen. Because of its specificity, DIMILIN does not effect bees or other beneficial insects when applied at labeled rates and is therefore an excellent product for use in IPM programs.

Mixing Instructions: Fill the spray tank with half the required amount of water. Begin agitation and add the required amount of DIMILIN 4L. Continue agitation while adding the remainder of the water. Agitation during application is recommended to maintain a uniform distribution of DIMILIN 4L in the water. Do not use equipment without adequate agitation.

GENERAL PRECAUTIONS AND RESTRICTIONS

Do not use in potable water or water used for swimming

Do not apply within 25 feet by ground or 150 feet by air of bodies of water such as lakes, reservoirs, rivers, permanent streams, natural ponds, marshes or estuaries.

DIRECTIONS FOR APPLICATION
TREES AND SHRUBS

DIMILIN 4L is effective in controlling a variety of insect pests found on trees and shrubs in areas such as:

- Public and private forests
- Forest plantings and forest nurseries
- Christmas tree and conifer nurseries
- Residential and municipal shade tree areas and landscape plantings
- Recreational areas such as campgrounds, golf courses, parks, parkways*
- Shelterbelts
- Rights of way and other easements

*In campground or other recreational areas applications should be made during periods of minimal use. Notify persons using recreational facilities or living in the area to be sprayed before application of this or any other pesticide.

NOT FOR USE IN GREENHOUSES, SHADEHOUSES, OR INTERIORSCAPES.

Application Notes: Determining the correct volume of water to apply is highly dependent on the tree height, canopy size and application type.

For ground applications, use an adequate amount of water to obtain thorough coverage to the foliage without excessive runoff. As a general guideline, use the recommended per acre dosage of DIMILIN 4L in the following amounts of water.

High volume hydraulic sprayer	100 - 400 gallons per acre
Mist blower, air blast sprayer	5 - 30 gallons per acre

For aerial applications, spray volumes of 1/2 to 5 gallons per acre are recommended.

Uniform coverage of the foliage is essential for optimum performance. The higher water volumes are recommended when application conditions are less than ideal, for very large or dense tree stands, for high population pressures or when insects have reached older instar stages.

Use Rates and Recommendations: The following table provides use rates and recommendations for optimum performance of DIMILIN 4L. In most cases, applications should be made when insect larvae are in the early instar stages. Applications made to late instar larvae may result in reduced foliage protection and the higher rates should be used.

INSECT PEST	RATE FL. OZS. / ACRE	MAX. / YEAR FL. OZS. / ACRE	APPLICATION TIMING / NOTES
Armyworms	2 - 4	4	Early instar
Bagworms	1 - 2	2	Early instars in mid to late June
Browntail Moth	1 - 2	2	When overwintering 2nd instars become active in late April / early May.
Budworms	2 - 4	4	4th instar
Cankerworms	2 - 4	4	Early instars
Gypsy Moths	0.5 - 2	2	Early instar and prior to full leaf expansion (5 - 20%)
Hemlock Looper	2 - 4	4	Early instars
Leafminers (lepidopterous)	-	8	Apply at a rate of 4 - 8 fl. ozs. in 100 gallons of water when oviposition begins on new growth flushes.
Oakworms	2 - 4	4	Early instars in August
Pandora Moth	2 - 4	4	After egg hatch in the fall or to early instars in the spring.
Pine Shooot Moth	2 - 4	4	Early instars
Pine Tip Moths	1 - 2	2	Early second generation instars or when 75% of first generation pupal cases are empty. Peak emergence can be determined by twig sampling, pheromone traps, degree days, etc.
Sawflies	2 - 4	4	Early instars
Spanworms	2 - 4	4	Early instars
Tent Caterpillars	1 - 4	4	Early instar and prior to full leaf expansion.
Tussock Moths	2 - 4	4	Early instars
Webworms	1 - 2	2	Early instars
Weevils (Diaprepes spp.)	-	8	Apply at a rate of 4 - 8 fl. ozs. in 100 gallons of water when adult weevils are present and/or to newly expanded growth. Will not control adult weevils but will reduce reproductive potential of adult weevils, resulting in decreased egg hatch.
Weevils (Terminal) of pine and spruce (Pissodes spp.)	2 - 4	4	Treat adults in early spring after snow melt and prior to egg deposition. Aerial applications not recommended. Thoroughly wet the leader and upper whorls of branches. Add an emulsifiable paraffinic crop oil at the rate of 1 to 2 gallons per acre.
Zimmerman Moth	2 - 4	4	Early instars in late summer prior to construction of hibernaculum.

QUARANTINE PROGRAMS (Gypsy Moth)

For use in Quarantine programs conducted by State cooperators as well as USDA personnel of both Plant Protection and Quarantine, APHIS and the U.S. Forest Service.

For use in eradication of isolated infestations make two applications of 1 fluid ounce of DIMILIN 4L per acre 7-14 days apart.

For use in quarantine programs involving the movement of nursery stock from infested to non-infested areas, make two applications of 1 to 2 ounces of DIMILIN 4L per acre 7 - 14 days apart on nursery stock.

Notify persons living in the area to be sprayed before application of this or any other pesticide.

IMPORTANT NOTICE—Seller warrants that this product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with the directions and instructions specified on the label under normal conditions of use, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product, contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.