



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (H7505C)
401 "M" St., S.W.
Washington, D.C. 20460

EPA Reg. Number:
264-807

Date of Issuance:
SEP 26 2003

NOTICE OF PESTICIDE:
 x Registration
 Reregistration

Term of Issuance:
Conditional

Name of Pesticide Product:
Calypto 70 WG
Insecticide

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):
Bayer CropScience LP
P.O. Box 12014
2 T. W. Alexandria Drive
Research Triangle Park, N C 27709

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, Fungicide 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:

- 1. Make the following label changes before you release the product for shipment:
 - a. Add the designation, "EPA Reg. No.264-807 ".
 - b. Correct the chemical name in the ingredient statement so that it reads as cited below.

[3-[(6-chloro-3-pyridinyl)methyl]-2-thiazolidinylidene]cyanamide

- c. Correct the spelling in the Spanish statement on the front panel so that it reads as cited below.

Si Usted no entiende la etiqueta, busque a alguien para que se la explique a Usted en detalle.

- d. Add the general spray drift statement cited below under the Directions for Use heading above the Agricultural Use Requirements box.

Do not allow spray to drift from the application site and contact people, structures people occupy at any time and the

Signature of Approving Official:

Date:

SEP 26 2003

associated property, parks and recreation areas, nontarget crops, aquatic and wetland areas, woodlands, pastures, rangelands, or animals.

e. Add the appropriate pounds per gallon statement reflecting the amount of active ingredient present in the product.

2. Submit the data listed below conducted in accordance with the specified Test Guideline number (given in parenthesis), in conformance with the Good Laboratory Practice rule (40 CFR Part 160) and in the format specified in PR Notice 86-5 no later than the time frames specified below.

a. Within 6 months of the date of this notice, confirmatory procedure for the livestock tissue analytical enforcement method (860.1340).

b. Within one (1) year of the date of this notice, photodegradation in soil (835.2410)

c. Within two (2) years of the date of this notice,
1. one year storage stability (830.6317)
2. corrosion characteristics (830.6320)
3. bioaccumulation in fish (165-4)

d. Within four (4) years of the date of this notice, limited field accumulation studies in rotational crops for wheat and soybeans. Thiacloprid, YRC 2894 amide and 4-OH-YRC 2894 amide are to be measured (OPPTS 860.1900).

3. Submit production information (pounds or gallons produced) for this product for the fiscal year in which the product is conditionally registered, in accordance with FIFRA Section 29. The fiscal year begins October 1 and ends September 30. The production information will be submitted to the Agency no later than November 15, following the end of the preceding year.

This information should be submitted to the attention of the Registration Support Branch, Section 29 report at the address cited below.

Document Processing Desk
Office of Pesticide Programs (7504C)
U. S. Environmental Protection Agency
Aerial Rios Building
1200 Pennsylvania Avenue, N. W.
Washington, DC 20460-0001

4. Contact the Analytical Chemistry Branch at the address

below regarding the need/scheduling for submittal of the analytical method used to assay the active ingredient in the subject product.

Charles Stafford, Acting Branch Chief
EPA Analytical Laboratory,
701 Maples Road, Ft. Mead, MD 20755.
Phone: 410 305-2905

5. Submit two copies of the revised final printed label before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Sincerely,



Daniel C. Kenny
Product Manager Team 4A
Insecticide-Rodenticide Branch
Registration Division (7504C)

4 8 9

Calypso™ 70 WG Insecticide

FOR CONTROL OF CERTAIN INSECTS INFECTING VARIOUS CROPS

ACTIVE INGREDIENT: Thiacloprid

[3-[96-chloro-3-pyridinyl)methyl]-2-thiazolidinylidene]cyanamide..... 70%

INERT INGREDIENTS: 30%

EPA Reg. No. 264-INT

EPA Est. No.

KEEP OUT OF REACH OF CHILDREN

WARNING - AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail).

For **MEDICAL** And **TRANSPORTATION** Emergencies **ONLY** Call 24 Hours A Day 1-800-334-7577

For **PRODUCT USE** Information Call 1-866-99BAYER (1-866-992-2937)

FIRST AID

IF SWALLOWED:	<ul style="list-style-type: none"> • Immediately call a poison control center or doctor for treatment advice. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Have person sip a glass of water if able to swallow. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
IF IN EYES:	<ul style="list-style-type: none"> • 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. • Call a poison control center or doctor for treatment advice.
For MEDICAL Emergencies Call 24 Hours A Day 1-800-334-7577.	
Have the product container or label with you when calling a poison control center or doctor or going for treatment.	
NOTE TO PHYSICIAN: No specific antidote is available. Treat the patient symptomatically.	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS (& DOMESTIC ANIMALS)

WARNING

May be fatal if swallowed. Harmful if absorbed through the skin. Avoid contact with the eyes, skin or clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear long-sleeved shirt and long pants, waterproof gloves and shoes plus socks.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturers instructions for cleaning/maintaining PPE. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS STATEMENTS

When handlers use closed systems, 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.

ACCEPTED
with COMMENTS
in EPA Letter Dated:

SEP 26 2003

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.

264-807

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.
- 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 product is highly toxic to marine/estuarine invertebrates. Do not apply directly to water, areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

Surface Water Label Advisory

This product may contaminate water through run-off following rainfall events.

Groundwater Label Advisory

The degradate YRC2984 sulfonic acid has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

DIRECTIONS FOR USE

**It is a violation of Federal law to use this product in any manner inconsistent with its labeling.
Read entire label before using this product.**

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.

Not for use on residential sites. Do not store in or around residential sites.

Do not apply this product through any kind of irrigation equipment.

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 intervals. 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, waterproof gloves and shoes plus socks.

STORAGE AND DISPOSAL

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

STORAGE

Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

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.

MIXING INSTRUCTIONS

To prepare the spray, add a portion of the required amount of water to the spray tank and with agitation add Calypso™ 70 WG. Complete filling tank with balance of water needed. Maintain sufficient agitation during both mixing and application.

Calypso™ 70 WG may also be used with other pesticides and/or fertilizer solutions as recommended under specific crop use directions (see NOTE below). When tank mixtures of Calypso™ 70 WG and other pesticides are involved, prepare the tank mixture as recommended above. When pesticide mixtures are needed, add wettable powders and dry flowables like Calypso™ WG first, liquid flowables second, and emulsifiable concentrates last. Ensure good agitation as each component is added. Do not add the second component in the mixture until the tank contains at least 1/2 of desired amount of water. If a fertilizer solution is added, a fertilizer

pesticide compatibility agent may be needed. Maintain constant agitation during both mixing and application to ensure uniformity of spray mixture.

NOTE: Test compatibility of the intended tank mixture before adding Calypso™ 70 WG to the spray or mix tank. Add proportionate amounts of each ingredient in the appropriate order, to a pint or quart jar, cap, shake for 5 minutes, and let set for 5 minutes. Poor mixing or formation of precipitates that do not readily redispense indicates an incompatible mixture that should not be used. For further information, contact your local Bayer CropScience representative.

RESISTANCE: Some insects are known to develop resistance to insecticides after repeated use. As with any insecticide, the use of this product should conform to resistance management strategies established for the use area. Consult your agricultural advisor for resistance management strategies and recommended pest management practices for your area.

ENDANGERED SPECIES NOTICE

To protect the endangered bird species, the Southwestern Willow Flycatcher, the Least Bell's Vireo, and the Cactus Ferruginous Pygmy-Owl, do not use thiacloprid in California or Arizona in areas south of a latitude of 35°.

To protect the Karner Blue Butterfly in Wisconsin and Michigan, do not apply within one mile of sandy habitats that support wild lupine plants.

To protect the Indiana Bat and the Gray Bat, do not apply from one-half hour before dusk to one-half hour after dawn.

Under the Endangered Species Act, it is a Federal Offense to use any pesticide in a manner that results in the death of a member of an endangered species. Consult your local county bulletin, County Extension Agent, or Pesticide State Lead Agency for information concerning endangered species in your area.

ROTATIONAL CROP RESTRICTIONS

Roots, tubers and bulb vegetables whose tops are not used for feed may be rotated with cotton after a plant back interval of 30 days. Leafy vegetables may be rotated after a 6 month plant back interval. Do not plant any other crop in the treated area for at least one year after application.

RECOMMENDED FOLIAR APPLICATIONS

COTTON

CROP	PEST	RATE	SPECIFIC DIRECTIONS
COTTON	Aphids Fleahopper	0.5 – 1.0 oz/acre	Apply specified dosage per acre as aphids or fleahoppers begin to build. Two applications at a 7- to 10-day interval may be required to achieve best results. Scout fields and retreat if needed.
	Plant Bugs Whiteflies	1.0 – 2.0 oz/acre	Apply specified dosage per acre as plant bug nymphs begin to build. Repeat applications at a 7- to 10-day interval as long as pest pressure continues. Begin applications when whitefly adults appear prior to development of nymphs. Make application on a 7-day interval as long as pest pressure continues. Whiteflies are known for their ability to develop resistance. It is recommended to switch to a pesticide of alternative chemistry with a different mode of action to continue control after a maximum of 3 applications.

RESTRICTIONS AND PRECAUTIONS: Cotton

- Thorough coverage with direct contact of the spray material to the target pests is required for optimum control. Addition of an organosilicone-based spray adjuvant at a rate not to exceed the adjuvant manufacturer's recommended use rate may improve coverage. Applications made with less than 5 gallons per acre may result in slower activity and/or less overall control from a single application than an application made with higher gallonages.
- Use lower rates early to mid season and increase to higher rates as the crop matures and penetration becomes increasingly difficult.
- Applications may be made by ground or air.
- Allow a minimum of 7 days between applications and 14 days between last application and harvest.
- Do not apply more than 6 ounces (0.26 lb AI) of Calypso™ per acre per season.
- Do not apply more than a total of 6 field applications per season.

APPLES

CROP	PEST	RATE PER APPLICATION		SPECIFIC DIRECTIONS
APPLE Crabapple Loquat Mayhaw Pear (oriental) Quince	Aphids (except wooly apple aphid) Leafminers Leafhoppers Mirid Bugs	0.35 – 0.7 oz per 100 gal	1.4 – 2.8 oz per acre ¹	Apply specified dosage as a dilute or concentrate foliar spray as needed. Target most sensitive stages of pest for best results. Calypso™ can be applied pre-bloom till "Pink" and again early petal fall when bees are not present. This flexibility in timing allows for optimal control of the target pest(s). For control of rosy apple aphid, apply prior to leafrolling caused by rosy apple aphid.
	Codling Moth Plum Curculio Suppression Only: Scale insects Apple Maggot	0.7 – 1.4 oz per 100 gal	2.8 – 5.6 oz per acre ¹	For optimal leafminer control, target when most eggs have been laid and larvae are in the sap-feeding stage, or at the time of egg hatch. Depending on local conditions, for first generation control, make first application at pink and/or around petal fall or as recommended by your local pest control adviser. A second application for that generation may be required 7-14 days after the first under severe pressure, when extended flight is encountered, when more than one species is to be controlled or when generations are overlapping. A single application may result in suppression only. Calypso™ will not control tissue feeding larvae. For resistance management reasons use a chemistry with a different mode of action for the control of at least one generation, preferably the last of the season. Apply low rate for low to moderate populations of white leafhoppers and high rate for high populations or for other leafhopper species. Two applications are needed for best control of mirid bugs; make the first application at pink followed by a second application at petal fall. For best codling moth control Calypso™ should be applied when oviposition starts to shortly before egg hatch. Already hatched larvae at time of application will not be controlled. With prolonged moth flights Calypso™ should be reapplied after 7 to 14 days. To cover the first generation 2 to 3 applications may be needed. For resistance management reasons it is recommended to switch to a chemistry with a different mode of action for the control of the subsequent generation(s). For plum curculio control a petal fall application is necessary followed by one to two cover sprays to cover the oviposition period. For this pest, the adult stage is being targeted. Applications on 10-14 day intervals starting at time of adult emergence with succeeding applications to cover the oviposition period are required for best results against apple maggot. For best results against scale insects, time applications to the crawler stage. Treat each generation.

RESTRICTIONS AND PRECAUTIONS: Apples

- Apply low rate for low to moderate populations and high rate for high populations or for improved or prolonged control.
- Allow 7 or more days between applications.
- Allow at least 30 days between last application and harvest.
- Aerial application of Calypso™ may result in slower activity and reduced control relative to results from ground application.
- Do not apply more than 5.6 ounces (0.25 lb AI) per acre in a single application.
- Do not apply more than a total of 11.4 ounces (0.5 lb AI) per acre per year.

PEARS

CROP	PEST	RATE PER APPLICATION		SPECIFIC DIRECTIONS
PEAR	Pear Psylla Aphids Mealybugs Leafminers Pear Midge Suppression Only: Scale Insects	0.7 – 1.4 oz per 100 gal	2.8 – 5.6 oz per acre ¹	<p>Apply specified dosage as a dilute or concentrate foliar spray as needed.</p> <p>Target most sensitive stages of pest for best results. Calypso™ 70 WG can be applied pre-bloom till "Pink" and again early petal fall when bees are not present. This flexibility in timing allows for optimal control of the target pest(s).</p> <p>For pear psylla control the higher end of the rate range is recommended.</p> <p>For optimal control of mealybug use maximum gallonage for tree size applied with ground application equipment. insure good spray coverage of the trunk and scaffolding limbs or other resting sites of the mealybug.</p> <p>For optimal leafminer control, target when most eggs have been laid and larvae are in the sap-feeding stage, or at the time of egg hatch. Depending on local conditions, for first generation control, make first application at pink and/or around petal fall or as recommended by your local pest control adviser. A second application for that generation may be required 7-14 days after the first under severe pressure, when extended flight is encountered, when more than one species is to be controlled or when generations are overlapping. A single application may result in suppression only. Calypso™ will not control tissue feeding larvae. For resistance management reasons use a chemistry with a different mode of action for the control of at least one generation, preferably the last of the season.</p> <p>For best pear midge control, application should be made at early petal fall as soon as pollination is complete and bees have been removed from the orchard.</p> <p>For best results against scale insects, time applications to the crawler stage. Treat each generation.</p>

RESTRICTIONS AND PRECAUTIONS: Pears

- Allow 7 or more days between applications.
- Allow at least 30 days between last application and harvest.
- Aerial application of Calypso™ may result in slower activity and reduced control relative to results from ground application.
- Do not apply more than 5.6 ounces (0.25 lb AI) per acre in a single application.
- Do not apply more than 11.4 ounces (0.5 lb AI) per acre per year.

¹ The amount of Calypso™ required per acre will depend on tree size and volume of foliage present. The rate per acre is based on a standard of 400 gallons of dilute spray solution per acre for large trees. For example, to calculate the rate for aphid control on smaller trees, multiply 0.5-1 fluid ounces times the number of 100 gallons of spray solution required to thoroughly wet, just prior to the point of runoff, one acre of the trees being treated. For concentrate sprays, apply the same amount of product per acre as would be applied in a dilute spray based on tree size and foliage volume.

OBSERVE THE FOLLOWING PRECAUTIONS WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES; RESERVOIRS; RIVERS; PERMANENT STREAMS, MARSHES OR NATURAL PONDS; ESTUARIES AND COMMERCIAL FISH FARM PONDS.

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 of these factors when making application decisions. Avoiding spray drift is the responsibility of the applicator.

Buffer Zone Requirements: For aerial applications, do not apply within 100 feet of lakes; reservoirs; rivers; permanent streams, marshes or natural ponds; estuaries and commercial fish farm ponds.

Recommendations For Aerial Applications: The spray boom should be mounted on the aircraft so as to minimize drift caused by wing tip vortices. The minimum practical boom length should be used, and must not exceed 75% of the wing span or rotor diameter.

Importance of Droplet Size: An important factor influencing drift is droplet size. Small droplets (<150 to 200 microns) drift to a greater extent than large droplets. Within typical equipment specifications, applications should be made to deliver the largest droplet spectrum that provides sufficient control and coverage. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible and by avoiding excessive spray boom pressure. Spray should be released at the lowest possible height consistent with good pest control and flight safety. Applications more than 10 feet above the crop canopy should be avoided.

Airblast (Air Assist) Specific Recommendations for Tree Crops and Vineyards: Airblast sprayers carry droplets into the canopy of trees/vines via a radially, or laterally directed air stream. The following specific drift management practices should be followed:

- Adjust deflectors and aiming devices so that spray is only directed into the canopy;
- Block off upward pointed nozzles when there is no overhanging canopy;
- Use only enough air volume to penetrate the canopy and provide good coverage;
- Do not allow the spray to go beyond the edge of the cultivated area (i.e., turn off sprayer when turning at end rows);
- Only spray inward, toward the orchard or vineyard, for applications to the outside rows.

Wind Speed Restrictions: Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size, canopy and equipment specifications determine drift potential at any given wind speed.

Do not apply when winds are greater than 15 mph and avoid gusty and windless conditions. Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

Restrictions During Temperature Inversions: Do not make aerial or ground applications during temperature inversions. Drift potential is high during temperature inversions. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature 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. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical mixing.

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for use of this product are believed to be adequate and should be followed carefully. However, it is impossible to eliminate all risks 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 or application, all of which are beyond the control of Bayer CropScience. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: BAYER CROPSCIENCE MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. Bayer CropScience disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

LIMITATIONS OF LIABILITY: THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE'S ELECTION, THE REPLACEMENT OF PRODUCT.

NET CONTENTS:

Calypso is a trademark of Bayer.



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