



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

January 21, 2022

David Anderson
Director, Regulatory Affairs
Rainbow Treecare Scientific Advancements D/B/A Rainbow Ecoscience
11571 K-Tel Drive
Minnetonka, MD 55343

Subject: Label Amendment – Addition of Use Restriction for Total Amount of Product Applied Per Day (CDPR Acephate Mitigation Plan)
Product Name: Acephate Infusible Insecticide
EPA Registration Number: 74779-5
Application Date: July 17, 2020
Decision Number: 571456

Dear David Anderson:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

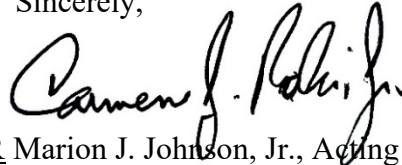
A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

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Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Mr. Carmen J. Rodia, Jr. by phone at (703) 306-0327, or via email at Rodia.Carmen@epa.gov.

Sincerely,



FOR Marion J. Johnson, Jr., Acting Product Manager 10
Invertebrate & Vertebrate Branch #2
Registration Division (7505P)

Enclosure: Stamped "Accepted" Master Label, January 21, 2022

[Label for Container Containing Multiple Packets]

Acephate Infusible Insecticide

[ABN: Lepitect™ Infusible Ornamental Tree & Shrub Insecticide]

For outdoor use in the control of insect pests of ornamental trees and shrubs in commercial and residential landscapes and plantscapes; nurseries; tree farms, and forests.

Active Ingredient	
Acephate (O,S-Dimethyl acetylphosphoramidothioate).....	97.4%
Other Ingredients.....	2.6%
Total	100.0%

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EPA Est. No.

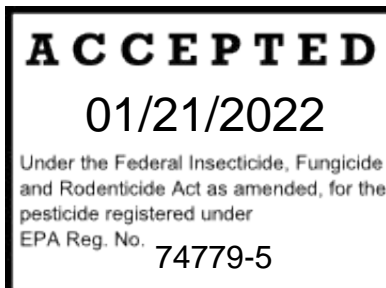
**KEEP OUT OF REACH OF CHILDREN
CAUTION**

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.)

See Side/Back Panel for Additional Precautionary Statements, First Aid and Directions for Use

Net Contents: 150 g (0.33 lb) [Consists of (20) twenty 7.5 g (0.26 oz) foil packets]

Rainbow Treecare Scientific Advancements
DBA Rainbow Ecoscience
11571 K-Tel Drive
Minnetonka, MN 55343
1-877-ARBORIST
1-877-272-6747
www.Rainbowecoscience.com



FIRST AID:	
IF SWALLOWED	<ul style="list-style-type: none">• Call poison control center or doctor 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.• Do not give anything by mouth to an unconscious person.
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 eye.• Call a poison control center or doctor for treatment advice.
IF INHALED	<ul style="list-style-type: none">• 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 treatment advice.
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.
Have the product container or label with you when calling a poison control center or doctor or going for treatment. For 24 Chemical Emergency, Spill, Leak, Fire or Accident, call CHEMTREC twenty-four (24) hours per day seven (7) days per week within the USA and Canada at 1-800-424-9300.	
<p style="text-align: center;">NOTE TO PHYSICIAN</p> <p>This material contains a cholinesterase inhibitor. Measurement of blood cholinesterase activity may be useful in monitoring exposure but decisions regarding treatment will usually need to be made before test results are available. If signs of cholinesterase inhibition appear, atropine sulfate is antidotal, 2-PAM (PROTOPAM) is also antidotal and may be used in conjunction with atropine but should not be used alone.</p>	

**PRECAUTIONARY STATEMENT
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

CAUTION: Harmful if swallowed. Causes eye irritation. Avoid contact with eyes, skin and clothing. Avoid breathing dust or spray mist. Wash hands thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

Mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants;
- Socks plus shoes;
- Chemical resistant gloves made of Barrier Laminate, Butyl Rubber \geq 14 mils, Nitrile Rubber \geq 14 mils, Neoprene Rubber \geq 14 mils, Polyvinyl Chloride (PVC) \geq 14 mils, or Viton \geq 14 mils;
- Protective eyewear

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, 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/PPE 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 pesticide is highly toxic to birds. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean water high mark. Do not contaminate water when cleaning equipment or disposing of equipment wash water.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

USE RESTRICTIONS

- **California:** Maximum application rate in California must not exceed 15.5 lbs of this product per day per applicator.
- Keep away from children.
- Do not use this product on food bearing trees or shrubs or on trees or shrubs that will bear food within one year after application.
- Do not leave injection devices unattended. Do not leave empty injection devices on trees.
- Do not store unused mix solution.
- Do not apply this product in a way that will contact workers or other persons, either directly or indirectly through drift. Only protected handlers may be in the area during application.
- For requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

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 apply to uses that are covered by the Worker Protection Standard.

No Worker Protection Standard worker re-entry restrictions or worker notification requirements apply when this product is directly injected into agricultural trees.

Precautions:

- Make treatments when signs of insects first appear.
- Only for use with the tree injection systems specified on the label.

- To assure optimum effectiveness, inject the product into the root flares. For optimum control, irrigate thoroughly prior to injection treatment.

APPLICATION TO ORNAMENTAL TREES AND SHRUBS

Controls insect pests of ornamental trees and shrubs grown outdoors in residential and commercial landscapes, golf courses, roadsides, airport grounds, cemeteries, parks, playgrounds, and athletic fields. Acephate Infusible Insecticide can also be used in commercial forestry production, nurseries, and in state, federal, county and local recreational forests. Acephate Infusible Insecticide is a systemic product and will be translocated upward into the plant system.

APPLICATION EQUIPMENT

Acephate Infusible Insecticide is an insecticide for use with tree injection devices that meet the label and dose requirements. Test for compatibility with the injector and its liquid contact components before regular use. Clean the interior of the injector with a solvent cleaner to remove any residual liquid from prior use. Use tree injection devices with care and in a safe manner, in addition to following manufacturer’s directions and precautions.

DIRECTIONS

Measure the tree and determine number of injection sites

Follow manufacturer’s directions and precautions in the use of tree injector systems. Measure the tree at breast height in inches (4.5 feet above the ground). If measuring the circumference of the tree, divide this number by six (6) to determine the number of injection sites needed. If measuring the diameter of the tree (DBH), divide this number by two (2) to determine the number of injection sites needed. Apply the injector sites into the active sapwood, evenly spaced around the tree at the root buttress region avoiding the root valleys. Refer to tables below to determine appropriate application rate.

Best uptake is in trees in full leaf. Conditions that favor transpiration (i.e., warm soil temperatures >45° F, moist conditions) are optimal for injection uptake. In conifers, high humidity and cool temperatures favor transpiration (i.e., early morning, overcast, rainy days) are optimal for injection uptake.

MICRO-INFUSION

MIXING INSTRUCTIONS

1. Use the appropriate number of packets for the tree size you wish to inject. Measure the tree at 4’ 6” above the soil with a DBH tape. Refer to the Tree Diameter table (Table 1) below for dosing guide.
2. Using the application solution container, combine 50 mL of water for every 1 package of Acephate Infusible Insecticide. Gently shake the solution until the Acephate Infusible Insecticide has dissolved and the contents are evenly distributed throughout the mixture. Mix only the desired amount of Acephate Infusible Insecticide that will be used for each application and use immediately after adding water.

Table1: Micro Infusion Dilution Rates, Number of Infusion Sites, and Volume of Ready-to-use Solution Needed Based on Tree Size.

DBH	Number of Packets	mls of water required for treatment	Number of injection sites per tree	Mls of Ready-to-use solution per injection site
6	1	50	4	12
7	1	50	4	12

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8	1	50	4	12
9	2	100	6	16
10	2	100	6	16
11	2	100	6	16
12	3	150	8	18
13	3	150	8	18
14	3	150	8	18
15	3	150	8	18
16	3	150	8	18
17	4	200	10	20.0
18	4	200	10	20.0
19	4	200	10	20.0
20	4	200	10	20.0
21	4	200	10	20.0
22	4	200	10	20.0
23	4	200	10	20.0
24	6	300	15	20.0
25	6	300	15	20.0
26	6	300	15	20.0
27	6	300	15	20.0
28	6	300	15	20.0
29	6	300	15	20.0
30	8	400	20	20.0
31	8	400	20	20.0
32	8	400	20	20.0
33	8	400	20	20.0
34	8	400	20	20.0
35	10	500	25	20.0
36	10	500	25	20.0
37	10	500	25	20.0
38	10	500	25	20.0
39	10	500	25	20.0
40	10	500	25	20.0
41	12	600	30	20.0
42	12	600	30	20.0
43	12	600	30	20.0
44	12	600	30	20.0
45	12	600	30	20.0
46	12	600	30	20.0
47	12	600	30	20.0
48	14	700	35	20.0
49	14	700	35	20.0
50	14	700	35	20.0
51	14	700	35	20.0
52	14	700	35	20.0
53	14	700	35	20.0
54	16	800	40	20.0
55	16	800	40	20.0
56	16	800	40	20.0
57	16	800	40	20.0
58	16	800	40	20.0
59	16	800	40	20.0
60	18	900	45	20.0
61	18	900	45	20.0

62	18	900	45	20.0
63	18	900	45	20.0
64	18	900	45	20.0
65	20	1000	50	20.0
66	20	1000	50	20.0
67	20	1000	50	20.0
68	20	1000	50	20.0
69	20	1000	50	20.0
70	20	1000	50	20.0
71	20	1000	50	20.0

MICRO- INFUSION PROCEDURE (Low Volume System)

Root flare injections are recommended.

Directions for Ornamental Trees and Shrubs:

Installation and Application:

1. Examine the tree for the presence of root flares. If flares are not visible, excavate the root collar.
2. Thoroughly brush all soil from the root flares. A dirty root flare will dull the drill bit and increase uptake time.
3. Drill a hole at a downward angle into each selected buttress root flare above the soil line. Drill to a depth of 2 to 2.5 cm (3/4 to 1”) into healthy xylem tissue. The hole needs to be drilled at an angle that will allow the injection device to completely empty.
4. Insert the tip of the injection device into the hole and seat firmly with hand pressure.
5. Start the infusion. Check for leaks. If leaks are found stop the infusion, re-seat the infusion device and re-start. . If leaks persist the problem may be too shallow of a hole, re-drill to a deeper depth.

Uptake usually occurs within minutes. Do not leave infusion device unattended during the infusion process. Do not leave infusion device in the tree. Once the solution has emptied remove the infusion device from the tree.

Note:

For Resinous Conifers such as pine and spruce, start the injection and/or infusion process immediately following the setting of the infusion device into the sapwood. A prolonged delay may reduce uptake efficacy on account of resin flow.

MACRO-INFUSION (High Volume System):

With this product, a hand pump with a 3-5 gallon reservoir is the recommended device along with the Rainbow Ecoscience Macro-infusion Tees and Harness Tubing.

Directions for Ornamental Trees and Shrubs:

Installation, Mixing and Application Instructions:

1. Measure the diameter of the tree at breast height (DBH).
2. Examine the tree for the presence of root flares. If flares are not visible, carefully remove soil from the base of the tree to uncover the top of the flare roots. Brush away loose soil. Very thoroughly – Dirty flares will dull the drill bit and increase uptake time. Make infusion sites 6-8 inches below the top of the root flare.
3. Drill holes through the bark, into sapwood, using a clean, sharp, 15/64 diameter, HIGH HELIX drill bit. Drill perpendicular to the surface of the flare. Drill hole diameter needs to be adequate to allow insertion of infusion tees and formation of airtight contact between active xylem and the delivery point of the infusion tees.

Drill hole depth must be adequate to deliver the product into active xylem tissue. Make the depth approximately 1 inch past the bark. Drill at slow speeds and do not unnecessarily spin the bit in the hole.

For best tree distribution use 1.5-2 infusion sites for every DBH inch (approximately 1 infusion site every 4-6 inches) evenly spaced around the root-flares.

4. Determine the amount of water and fill solution reservoir with half of the required amount. Refer to Table 2 below. With high volume systems, more water can be utilized without a decrease in product effectiveness.
5. Check each tee to be sure it is not plugged and replace badly damaged tees. Firmly insert tees by hand. Attach tubing from the solution reservoir to feed into the harness in 2 locations, on opposite sides of the tree.
6. Pull out 2 tees on opposite sides of the tree. Prime the pump if it is not self-priming. Turn on the pump and bleed the air out of the line. With all air out of harness, re-insert the 2 tees and check for leaks. Adjust the pressure to 15-20 psi. Lightly tap any leaking tees.
7. Determine the appropriate number of packets for the tree size. Tear open packets and pour into tank. Refer to the Tree Diameter table (Table 2) below for mixing quantities.
8. Add the remaining amount of water
9. Seal the solution reservoir and gently shake the solution until the **Acephate Infusible Insecticide** has dissolved and the contents are evenly distributed throughout the mixture. Mix only the desired amount of **Acephate Infusible Insecticide** that will be used for each application and use immediately after adding water.
10. During the infusion, monitor tees for leaks. Maintain pressure at 15-20 psi.
11. Do not leave macro infusion system unattended during the infusion process.
12. Do not leave used macro infusion tees in the tree. Turn off the pump when air is drawn into the harness. Remove tees from the tree. Replace soil and sod around the base of the tree. It is not necessary to treat drill holes with wound paint or other sealing compounds.

Directions for Palms:

Drill a pilot hole into the vascular bundle using a 3/16” diameter bit one third the stem diameter (e.g., if the palm is 12”DBH, then drill a 4” deep pilot hole), then drill a wider, shallow hole to set the injection device and complete the application. Only one application site is required. See table 2 for the number of packets and volume of water required. Avoid wounding the meristematic tissue located within the crown of the plant. In general, make applications to the lower trunk region, typically within 12” of the soil.

Table 2: Macro Infusion Dilution Rates Based on Tree Size. (Use 1.5 – 2 infusion sites per inch of DBH.)

Tree Size (DBH)	# of Acephate Infusible Insecticide Packets	Macro-Infusion L of water (Total Injection volume)
6 – 11”	1-2	1
12 – 23”	3-4	2
24 – 35”	6-10	4
36 – 47”	10-12	6
48 – 59”	14-16	8
60 – 71”	18-20	10

APPLICATION:

Use Site: Ornamental Trees, Shrubs, Evergreens, Conifers, & Palms		
For outdoor use in residential and commercial landscapes, golf courses, roadsides, airport grounds, cemeteries, parks, playgrounds, and athletic fields. Acephate Infusible Insecticide can also be used in commercial forestry production, nurseries, and in state, federal, county and local recreational forests.		
Pest	DBH	Rate
Adelgids (including Hemlock Woolly Adelgid)	6 - 11"	1-2 packet
Aphids	12 - 23"	3-4 packets
Bagworms	24 - 35"	6-10 packets
Birch Leafminer	36 - 47"	10-12 packets
Boxelder Bug	48 - 59"	14-16 packets
Browntail moth	60 - 71"	18-20 packets
Budworms		
Cankerworms (Spring and Fall)		
Carpenterworm		
Casebearer		
Clear Wing Borers		
Cone worms		
Cottonwood Twig Borer		
Eastern Oak Looper		
Eastern Tent Caterpillar		
Elm Spanworm		
Fall Cankerworm		
Fall Webworm		
Flatheaded Borers (Excluding Emerald Ash Borers)		
Gall Midges		
Gypsy Moth (larvae)		
Japanese Beetle		
Lace bugs		
Leaf Beetles (larvae) (Including Elm Leaf and Willow Leaf Beetle)		
Leafhoppers		
Leafminers		
Leafrollers		
Linden Looper		
Longhorned Borers (Including Eucalyptus and Red Oak Longhorned Borers)		
Mealybug		
Nantucket Pine Tip Moth (larvae)		
Oakworms		
Pine Cone Worm		
Pine Needle Miners		
Pine Tip Moth		
Plant Bugs		
Poplar Tentmaker		
Root Weevil (adults) (Including Black Vine Weevil)		
Roundheaded Borers (Excluding Asian Longhorned Beetle)		
Royal Palm Bugs		
Sawfly (larvae)		
Scales (crawlers)		

Spider mites Spring Cankerworm Tent Caterpillar Thrips Tussock Moth (larvae) Variable Oakleaf Caterpillar Walnut Caterpillar Webworms Winter Moth White Flies White Pine Weevil Whitemarked Tussock Moth Yellownecked Caterpillar Zimmerman Pine Moths	
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STORAGE AND DISPOSAL

Pesticide Storage: Keep this product in its tightly closed original container. Store in a cool, dry (preferably locked) area that is inaccessible to children and animals. Do not store near feed, food or foodstuffs.

Pesticide Disposal: Wastes resulting from the use of this product should be disposed of according to the Directions for Use, i.e. used as directed in the injection equipment.

Container Disposal: Non-refillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling, if available or dispose of empty bag in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

Notice: Read the entire Directions for Use and Conditions of Sale and 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.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Tree injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or tree conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of RAINBOW ECOSCIENCE or seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold RAINBOW ECOSCIENCE and seller harmless for any claims relating to such factors.

RAINBOW ECOSCIENCE warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions. This warranty does not extend to the use of the product contrary to label instructions, and Buyer and User assume the risk of any such use. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, RAINBOW ECOSCIENCE MAKES NO WARRANTIES OR MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.**

To the fullest extent permitted by law, RAINBOW ECOSCIENCE or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE**

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USER OR BUYER, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) 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 RAINBOW ECOSCIENCE OR SELLER, THE REPLACEMENT OF THE PRODUCT.

RAINBOW ECOSCIENCE and Seller offer this product, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of RAINBOW ECOSCIENCE.

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OPTIONAL MARKETING CLAIMS

Committed to advancing the science of tree care.

Committed to bringing tools inside protocols that get predictable results for the arborist practitioner.



[Label for Individual Foil Packets]

Acephate Infusible Insecticide

Active Ingredient: Acephate 97.4%

EPA Reg. No. 74779-5

KEEP OUT OF REACH OF CHILDREN
CAUTION

Refer to label for complete directions for use and precautions

Net Contents: 7.5g (0.26 oz)