

# INSECTICIDE



CLOFENTEZINE GROUP 10A INSECTICIDE

# CRIVEN™

A Suspension Concentrate (SC) Formulation for Mite Control on Avocado, Papaya, Guava, Hops, Apples, Pears, Apricots, Cherries, Grapes (except New York), Peaches, Nectarines, Persimmons, Almonds, Walnuts, Christmas Trees (except California)

ACTIVE INGREDIENT:	(% by weight)
Clofentezine: 3,6-bis (2-chlorophenyl)-1,2,4,5-tetrazine*	42.0%
OTHER INGREDIENTS:	58.0%
TOTAL	100.0%

\* Contains 1 pound of active ingredient per quart.

## KEEP OUT OF REACH OF CHILDREN CAUTION / PRECAUCIÓN

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 inside label booklet for First Aid, Precautionary Statements and  
Directions for Use.

EPA Reg. No.: 89167-115-89391  
EPA Est. No.: 67545-AZ-001

 INNICTIS



Distributed By:  
INNICTIS® CROP CARE, LLC  
1880 Fall River Drive, Suite 100  
Loveland, CO 80538

112421RD120921

## FIRST AID

### If on skin or clothing:

- 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:

- 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 swallowed:

- Call a 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 a poison control center or doctor.
- **DO NOT** give anything by mouth to an unconscious person.

### 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.

## HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact **1-800-424-9300** for emergency medical treatment information.

**For Chemical Emergency: Spill, Leak, Fire, Exposure, or Accident,  
Call CHEMTREC Day or Night 1-800-424-9300**

# PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS

### CAUTION

Harmful if swallowed. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants;
- 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); and
- Shoes plus socks.

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.

### ENGINEERING CONTROLS STATEMENT

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.

### 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

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. **Do not** apply within 100 feet of lakes, reservoirs, rivers, permanent streams, marshes, natural ponds, estuaries, and commercial fish farm ponds. **Do not** apply when weather conditions favor drift from treated area. **Do not** allow spray to drift off of crop, especially when spraying outer rows. Always direct spray *into* the orchard. **Do not** contaminate water when disposing of equipment washwaters or rinsate.

**IMPORTANT** - Read the entire Directions for Use and Disclaimer of Warranties before using this product.

## 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. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Clofentezine is unstable under alkaline and moderately acidic conditions and such conditions will result in chemical degradation of the miticide.

**Important:** Buffer the carrier water at or below a pH of 5.0-5.5 before adding this product to the spray tank.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

## 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 barrier laminate, butyl rubber  $\geq 14$  mils, nitrile rubber  $\geq 14$  mils, neoprene rubber  $\geq 14$  mils, polyvinyl chloride  $\geq 14$  mils, or viton  $\geq 14$  mils
- Shoes plus socks.

## USE RESTRICTIONS

**DO NOT** MAKE MORE THAN 1 APPLICATION OF *CRAVEN* PER YEAR.

**DO NOT** graze livestock in treated areas or harvest cover crop for livestock feed.

**DO NOT** apply this product through any type of irrigation system.

**DO NOT** apply by air.

**Buffer the carrier water at or below a pH of 5.0 - 5.5 before adding this product to the spray tank.**

## USE INFORMATION

*CRAVEN* is a specific miticide, which acts as an ovicide. *CRAVEN* is not disruptive to beneficial insects and mites. It has good residual activity on European red mites, McDaniel mites, Pacific spider mites, two-spotted spider mites, Eriophyes and Yellow spider mites when applied according to label directions.

**This product may only be used on the following crops: Pome Fruit Group 11-10, including Apple, Azarole, Crabapple, Loquat, Mayhaw, Medlar, Pear, Asian Pear, Quince, Chinese Quince, Japanese Quince, Tejocote, and**

cultivars, varieties, and/or hybrids of these; Apricots; Cherry Subgroup 12-12A, including Capulin, Black Cherry, Nanking Cherry, Sweet Cherry, Tart Cherry, and cultivars, varieties, and or hybrids of these; Peach Subgroup 12-12B, including Nectarine, Peach, and cultivars, varieties, and/or hybrids of these; Fruit, small, climbing, vine (except fuzzy kiwifruit) Subgroup 13-07F, including Amur River Grape (except New York), Gooseberry, Grape (except New York), Hardy Kiwifruit, Maypop, Schisandra Berry, and cultivars, varieties, and hybrids of these; Avocado (except California); Guava(except California); Papaya (except California); Hops; Persimmon, Almond, Walnut, and Christmas Trees (except California).

Because *CRAVEN* acts primarily against the egg, apply *CRAVEN* at the first sign of mite activity. On apples, delayed dormant or early season applications of *CRAVEN* may not effectively control two-spotted spider mites or McDaniel mites which invade trees later in the summer. If the mite population is approaching damaging levels on the target crops, including European red mites on apples, or if pear rust mite is present, combine *CRAVEN* Ovicide/Miticide with an appropriate adulticide.

## TARGET SPECIES

COMMON NAME	SCIENTIFIC NAME	COMMON NAME	SCIENTIFIC NAME
European red mite	<i>Panonychus ulmi</i>	Two-spotted spider mite	<i>Tetranychus urticae</i>
McDaniel spider mite	<i>Tetranychus mcDanieli</i>	Yellow Spider mite	<i>Eotetranychus carpini borealis</i>
Pacific spider mite	<i>Tetranychus pacificus</i>		

## RATE & TIMING OF APPLICATION

If the mite population is approaching damaging levels on the target crops, combine *CRAVEN* with an appropriate adulticide.

Crop	Rate/Acre/ Year	Timing <sup>1</sup>	PHI *
Avocado***; Guava***, Papaya***	4–8 oz	First sign of mites	3 days
Hops	4–8 oz	First sign of mites	21 days
Pome Fruit Group 11-10, including Apple, Azarole, Crabapple, Loquat, Mayhaw, Medlar, Quince, Chinese Quince, Japanese Quince, Tejocote, and cultivars, varieties, and/or hybrids of these	4–8 oz	Delayed dormant through first sign of mites	45 days
Pears and Asian pear	4–8 oz	First sign of mites	21 days
Fruit, small, climbing, vine (except fuzzy kiwifruit) Subgroup 13-07F, including Amur River Grape (except New York), Gooseberry, Grape (except New York), Hardy Kiwifruit, Maypop, Schisandra Berry, and cultivars, varieties, and hybrids of these	4–8 oz	First sign of mites	21 days
Apricots	2-8 oz**	First sign of mites	21 days
Cherry Subgroup 12-12A, including Capulin, Black Cherry, Nanking Cherry, Sweet Cherry, Tart Cherry, and cultivars, varieties, and or hybrids of these	2-8 oz**	First sign of mites	21 days

Peach Subgroup 12-12B, including Nectarine, Peach, and cultivars, varieties, and/or hybrids of these	2-8 oz**	First sign of mites	21 days 10 days (California only)
Persimmons	2-8 oz**	First sign of mites	140 days
Almonds	4-8 oz	First sign of mites	30 days 14 days (California)
Walnuts	4-8 oz	First sign of mites	30 days

<sup>1</sup> **DO NOT** make more than 1 application of *CRAVEN* per year.

\* PHI = Pre-Harvest Interval, the **latest** timing for an application prior to harvest.

\*\* Applications with rates below 4 ounces of *CRAVEN* per acre should only be used in association with established IPM programs and **only** when adequate beneficial insects/mites are prevalent.

\*\*\* Not for use on Avocado and Papaya in California

Factors which warrant the higher rates (4 to 8 ounces) of *CRAVEN* per acre include:

1. For control of Pacific spider mites.
2. For control of McDaniel spider mites
3. Earliest seasonal timings for blocks with high overwintering European red mite egg populations.
4. When mite predator populations are low.
5. To ensure adequate coverage of full size standard trees and/or trees with heavy leaf densities.

When an adjuvant is to be used with this product, INNVICTIS CROP CARE suggests the use of a Chemical Producers and Distributors Association certified adjuvant.

## APPLICATION METHOD

Apply *CRAVEN* Ovicide by ground using either dilute or concentrate spray equipment.

**DO NOT apply by air.**



### **Avocado, Guava and Papaya**

50 to 400 gallons of water: Apply 4 to 8 ounces of *CRAVEN* per acre. Use sufficient volume of water to obtain complete coverage, but not less than 50 gallons per acre.

### **Hops**

For boom-sprayer applications, apply 4 to 8 ounces of *CRAVEN* with a minimum carrier volume of 20 gallons per acre. For air blast applications, apply with sufficient carrier volume to obtain complete coverage, at least 50 gallons/acre. Apply *CRAVEN* once per season.

Applying sprays via mechanically pressurized handguns are prohibited.

### **Apples and Pears**

50 to 400 gallons of water: Apply 4 to 8 ounces of *CRAVEN* per acre. Use sufficient volume of water to obtain complete coverage, but not less than 50 gallons per acre. For applications above 400 gallons per acre, use 1 to 2 ounces of *CRAVEN* per 100 gallons of spray. **Do not** apply less than 4 ounces of *CRAVEN* per acre.

### **Grapes (except New York)**

At least 50 gallons of water: Apply 4 to 8 ounces of *CRAVEN* per acre.

Wine and Grape Juice: Tying/ training, hand harvesting and hand leaf pulling are not permitted within 39 days after application.

Table and Grape Raisin: Tying/ training and hand leaf pulling are not permitted within 14 days after application. Girdling and turning activities are not permitted after use of this product.

### **Apricots, Cherries, Persimmons, Peaches, and Nectarines**

50 to 400 gallons of water: Apply 2 to 8 ounces of *CRAVEN* per acre.

### **Almonds and Walnuts**

50 to 400 gallons of water: Apply 4 to 8 ounces of *CRAVEN* per acre. Use at least 6 ounces of *CRAVEN* south of California Highway No. 152.

A tank mix of *CRAVEN* with an adulticide may be warranted when adult mites are present. **Do not** use the tank mix under conditions where the adulticide alone is not recommended. Before use, read the adulticide label for additional information and precautions.

## **Christmas Trees and Christmas Tree Plantations (except California)**

50 to 400 gallons of water: Apply 4 to 8 ounces of *CRAVEN* per acre for control of Pacific spider mite, Spruce spider mite, and Two-spotted spider mite. Time applications for periods of peak egg laying or immature mite activity. **Do not** make more than one application per year.

## **RESISTANCE MANAGEMENT STRATEGIES (FOR INSECTICIDE)**

For resistance-management, *CRAVEN* contains a group 10A insecticide. Any insect population may contain individuals naturally resistant to *CRAVEN* contains a Group 10A insecticide. The resistant individuals may dominate the insect population if these groups of insecticides are used repeatedly in the same fields.

Appropriate resistance-management strategies should be followed.

To delay insecticide resistance take the following steps:

- Rotate the use of *CRAVEN* or other Group 10A insecticide within a growing season, or among growing seasons, with different groups that control the same pests. Avoid application of more than the maximum seasonal use rate or the total number of consecutive sprays *CRAVEN* or other insecticides in the same group in a season.
- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. **Do not** rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture.

In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):

- Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
- Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
- When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
- Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.

- The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide/acaricides use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance, contact Innvictis Crop Care at 844-425-8488. You can also contact your pesticide distributor or university extension specialist to report resistance.

# STORAGE AND DISPOSAL

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

## **PESTICIDE 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 reach of children, preferably in a locked storage area.

**Do not** store above 100 °F for extended periods of time. Storage below 20 °F can result in formation of crystals. If product crystallizes, store at 50 °F to 70 °F and agitate to redissolve crystals. If container is damaged or spill occurs, use product immediately or dispose of product and damaged container as indicated below.

**PESTICIDE DISPOSAL:** Open dumping is prohibited. Pesticide wastes are toxic. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

## **CONTAINER HANDLING:**

### **NONREFILLABLE CONTAINERS:**

**Rigid, Nonrefillable containers small enough to shake (i.e. with capacities equal to less than five gallons).**

Nonrefillable container. **Do not** reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

**Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full of water and recap. Shake container for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning if available, or puncture and dispose of container in a sanitary landfill, or by other procedures approved by state and local authorities.

*(cont'd next page)*

# STORAGE AND DISPOSAL *(cont'd)*

## **CONTAINER HANDLING:**

### **NONREFILLABLE CONTAINERS:**

**Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or a mix tank or collect rinsate at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once container is rinsed, offer for recycling if available, or puncture and dispose of container in a sanitary landfill.

**Rigid, Nonrefillable containers that are too large to shake (i.e. with capacities greater than 5 gallons or 50 lbs).**

Nonrefillable container. **Do not** reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

**Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full of water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling or reconditioning if available, or puncture and dispose of container in a sanitary landfill, or by other procedures approved by state and local authorities.

**Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or a mix tank or collect rinsate at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once container is rinsed, offer for recycling if available, or puncture and dispose of container in a sanitary landfill.

## **CONDITION 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. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of INNVICTIS CROP CARE, LLC 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 INNVICTIS CROP CARE, LLC and Seller harmless for any claims relating to such factors.

INNVICTIS CROP CARE, LLC 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 under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or INNVICTIS CROP CARE, LLC, and TO THE EXTENT CONSISTENT WITH APPLICABLE LAW Buyer and User assume the risk of any such use. INNVICTIS CROP CARE, LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, neither INNVICTIS CROP CARE, LLC nor Seller shall 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 USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF INNVICTIS CROP CARE, LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, 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 INNVICTIS CROP CARE, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

INNVICTIS CROP CARE, LLC and Seller offer this product, and Buyer and User accept it, 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 INNVICTIS CROP CARE, LLC.

# CRAVEN<sup>TM</sup>

## ACTIVE INGREDIENT:

(% by weight)

Clofentezine: 3,6-bis (2-chlorophenyl)-1,2,4,5-tetrazine\* ..... 42.0%

## OTHER INGREDIENTS:

58.0%

## TOTAL:

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\* Contains 1 pound of active ingredient per quart.

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