



U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Registration Division (7505C)  
401 "M" St. S.W.  
Washington, D.C. 20460

EPA Reg. Number:  
264-609

Date of  
March 15, 2002

NOTICE OF PESTICIDE:  
 Registration  Reregistration  
(under FIFRA, as amended)

Term of Issuance:  
Conditional

Name of Pesticide Product:  
ASSAIL brand 70WP  
Insecticide

Name and Address of Registrant (include ZIP Code):  
Aventis CropSciences  
P.O.Box 12014  
2 T.W. Alexander Drive  
Research Triangle Park, NC 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(a)(7)(A) provided that you:

1. Submit and/or cite all data required for registration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.
2. Make the following label changes before you release the product for shipment:
  - a. Revise the EPA Registration Number to read, "EPA Reg. No. 264-609".
3. You must address the data deficiencies listed on pages 2-3 within the specified time limit.

A copy of the label stamped "accepted with comments" is enclosed for your records.

Signature of Approving Official:  
Akiva Abramovitch, Ph.D.  
Chemist  
Insecticide-Rodenticide Branch  
Registration Division (7505C)

Date: March 15, 2002

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1) Submit the following RESIDUE CHEMISTRY data:

- Storage stability data for rotational crops.
- Radiovalidation data for IM-2-1-amide in ruminant muscle.

2) Submit the following ENVIRONMENTAL FATE and EFFECTS data:

**Avian Reproduction (850.2300).** The value of repeating the avian reproduction studies with the northern bobwhite and the mallard is high. Major deficiencies with both studies made the results unreliable. Furthermore, the NOAEL was not determined for the northern bobwhite because chick body weight was significantly reduced at all treatment levels. While the tentative chronic avian risk assessment yielded risk quotients that were only slightly below the LOC for some uses. Changes in the NOAEL therefore may change the conclusions of the chronic risk assessment for birds. Data must be submitted within 1 year.

**Acute Aquatic Invertebrate LC<sub>50</sub> (850.1010).** The acute toxicity test conducted with the water flea was classified as supplemental because the test water used was too hard, which may have effected the toxicity of the test compound. More importantly, however, evidence suggest that the water flea may be an insensitive species to chloronicotinyl insecticides such as acetamiprid. The mode of action of these insecticides is highly selective and exhibit unusually large variability among species. We suspect that some other species of freshwater species, in particular freshwater insects, would exhibit much greater toxicity to acetamiprid than does the water flea. In order to better quantify the risk to freshwater invertebrates, we are requesting that this test be repeated with two additional test species, a freshwater amphipod and a freshwater insect (a stonefly, mayfly, or midge). This testing also will provide information on which types of threatened and endangered aquatic invertebrates are sensitive to acetamiprid and require special protective measures. Data must be submitted within 1 year.

**Freshwater Fish Early Life-Stage (850.1400).** This study was classified as supplemental because information on physiological and behavioral observations were lacking from the study report. This study may be upgraded to core without repeating the study if this information is provided. The value of this information is moderate. Data must be submitted within 6 months

**Toxicity of Foliar Residue to the Honey Bee (850.3030).** This study is required because the acute contact LD<sub>50</sub> of acetamiprid to the honey bee is less than 11 µg/bee. Data from this study would assist with labeling to protect bees since it would provide information on how long after application residues of acetamiprid will remain toxic to bees. The value of these data are high. Since this tier 2 study will provide sufficient information for assessing the toxicity of acetamiprid to bees, the tier 1 acute contact LD<sub>50</sub> study (850.3020) does not need to be repeated. Data must be submitted within 1 year.

**Tier II Phytotoxicity, Seedling Emergence (850.4225).** The seedling emergence portion of the study is supplemental because plant dry weights were not measured. Based on the current available data, however, the risk of acetamiprid causing seedling emergence effects to nontarget plants is expected to be minor. Also, based on results for lettuce, vegetative vigor effects are predicted to pose a greater risk to nontarget plants than seedling emergence effects. Therefore, we **do not** require that the seedling emergence portion of this test be repeated or upgraded.

**Tier II Phytotoxicity, Vegetative Vigor (850.4250).** The results of this study for lettuce is inconsistent with the results of the other none test species. Furthermore, unusual responses for some endpoints and observed problems

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with the control plants make the results for lettuce questionable. The value of repeating this study with lettuce is high. Since the vegetative vigor effects observed in lettuce were far more sensitive than effects observed in other species, the terrestrial plant risk assessment was based upon these questionable data, which makes the plant risk assessment very uncertain. Any change in the results for lettuce would result in a change in the risk quotients and could change the risk conclusions for terrestrial plants. Any change also could change the determination of risk for threatened and endangered plants. The tier II vegetative vigor study does not need to be repeated for species other than lettuce. Data must be submitted on lettuce within 1 year.

**Acute Earthworm LC<sub>50</sub>.** The PMRA has classified this study as invalid and is requiring that it be repeated for registration of acetamiprid in Canada. The USEPA does not have a test guideline for acute toxicity testing with the earthworm. However, we feel that this study would provide us with useful information for risk assessment and therefore request that it be submitted to the USEPA as well as to the PMRA when it is completed. Data should be submitted when available to PMRA.

The data gaps are listed in the following table:

| Guideline | Study Type                                  | Test Species  | Acceptability  |
|-----------|---|---|--|
| 850.2300  | Avian reproduction                          | Northern bobwhite, Mallard  | Supplemental, major deficiencies in study-may change chronic risk to birds |
| 850.1010  | Aquatic invertebrate acute LC <sub>50</sub> | Water flea  | Supplemental, more sensitive species needed                                |
| 850.1400  | Fish early life-stage                       | Fathead minnow  | Supplemental, may be upgraded with additional data                         |
| 850.3030  | Honey bee, toxicity of residues on foliage  | Honey bee   | Invalid, important to establish label mitigations to protect bees          |
| 850.4250  | Vegetative vigor, tier II                   | Corn, oat, onion, perennial ryegrass, cabbage, cucumber, lettuce, soybean, tomato, and turnip | Supplemental for lettuce, core for all other test species                  |

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.

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

Registration Support Branch

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EPA Reg. No. 264-609

Washington, DC 20460

Registration Division (7505C)

1200 Pennsylvania AVE, NW

6. Submit one copy of the 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.

Enclosure: Stamped copy of label

5/17

# ASSAIL™ brand 70WP Insecticide

ACCEPTED

For Ag or Commercial Use Only with COMMENTS

In EPA Letter Dated:

ACTIVE INGREDIENT: Acetamiprid..... 70% by wt.

MAR 15 2002

INERT INGREDIENTS:..... 30% by wt.

EPA Reg. No. 264-XXX

Under the Federal Insecticide, Fungicide, and Rodenticide Act, EPA Est. No.

unamended, for the pesticide registered under EPA Reg. No. 264-609

## 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.)

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

For PRODUCT USE Information Call 1-888-AVENTIS (1-888-283-6847)

### FIRST AID

|                                |  |
|--------------------------------|--|
| <b>IF SWALLOWED:</b>           | <ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor for treatment advice.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul> |
| <b>IF IN EYES:</b>             | <ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>  |
| <b>IF ON SKIN OR CLOTHING:</b> | <ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>  |
| <b>IF INHALED:</b>             | <ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>  |

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:** There is no specific antidote. All treatment should be based on observed signs and symptoms of distress in the patient. Overexposure to materials other than this product may have occurred.

## PRECAUTIONARY STATEMENTS

### CAUTION

#### HAZARDS TO HUMANS (& DOMESTIC ANIMALS)

Harmful if inhaled or absorbed through the skin. Avoid breathing vapors or spray mist. Avoid contact with eyes, skin or clothing. Keep out of reach of children and domestic animals.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear long-sleeved shirt and long pants, waterproof gloves, shoes plus socks and chemical resistant headgear for overhead exposure.

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.

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 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 toxic to wildlife. This product is toxic to bees exposed to direct treatment. Do not apply this product while bees are actively visiting the treated area. 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 contaminate water when disposing of equipment washwater or rinsate. Do not contaminate water used for irrigation or domestic purposes.

### SPRAY DRIFT

Avoid spray drift. Do not apply when weather conditions may cause drift. Do not allow this product to drift on to non-target areas. To avoid spray drift, **DO NOT** apply aerially when wind speed is greater than 10 mph or during periods of temperature inversions. For aerial application, select nozzles and pressure that deliver **MEDIUM** spray droplets as indicated in nozzle manufacturer's catalogs and in accordance with ASAE Standard S-572.

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

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 decisions.

The following drift management requirements must be followed to avoid off-target movement from aerial applications to agricultural 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.

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 below:

### AERIAL DRIFT REDUCTION ADVISORY

[This section is advisory in nature and does not supersede the mandatory label requirements].

#### INFORMATION ON DROPLET SIZE

The most effective way to reduce drift potential is to apply **MEDIUM** 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 manufacturer'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 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 target 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 crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator should compensate for this 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 speeds 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 spray 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 both 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 upward 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).

**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.

**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**

**STORAGE**

Do not store in or around the home. Store unused product in a cool, ventilated, dry, locked area. Do not allow prolonged storage in areas where temperatures frequently exceed 115° F (46° C). NEVER TRANSFER THIS PRODUCT TO ANOTHER CONTAINER FOR STORAGE.

**PESTICIDE DISPOSAL**

Do not contaminate water, food or feed by storage or disposal. Contamination with this product will render water, food or feed unfit for human or animal consumption. 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.

**COMPATIBILITY**

ASSAIL™ brand 70WP Insecticide, when diluted with an equal volume of water, is physically compatible with a wide range of commonly used spray products, but the full range of compatibilities under local conditions is not known. Therefore, it is essential that before using ASSAIL™ brand 70WP Insecticide in any tank mixture the compatibility of the mixture be established. Add a small amount of this product to an equal volume of water in a small container and then add the other pesticide or spray product and mix thoroughly. DO NOT USE MIXTURES THAT CURDLE, PRECIPITATE, OR GREASE. FOR BEST RESULTS, SPRAY MIXTURES SHOULD BE USED IMMEDIATELY AFTER MIXING WITH ADEQUATE AGITATION.

**DIRECTIONS FOR AERIAL OR GROUND SPRAY APPLICATION**

**APPLICATION TIMING**

Begin application when insect populations reach recognized economic threshold levels. Consult the Cooperative Extension Service, Professional consultants or other qualified authorities to determine appropriate threshold levels for treatment in your area.

**APPLICATION INSTRUCTIONS**

**ROW CROPS**

**Recommended Mixing and Application Instructions**

Assail™ brand 70WP Insecticide is a dry powder formulation that readily disperses in water to form a spray, which may be applied by ground or air.

1. Fill tank ¼ - ½ full with the required amount of total spray volume of water.
2. Begin agitation and add product.
3. Continue to fill tank while directing a stream of water onto any floating product.
4. Allow mixing in tank for 2 minutes after filling or until thoroughly mixed before applying.
5. Maintain continuous agitation during mixing and application to assure uniform suspension. If mixture sits without agitation for extended periods, agitate the mixture for at least 10 minutes before use.
6. Plan ahead. Prepare only enough spray mixture as can be applied on the day of mixing.

- 7. Equip spray system with a 50-mesh inline filter, which will protect nozzles that are typically used. Nozzles may also be equipped with 50- mesh nozzle filters or 25 to 50 mesh (equivalent) slotted nozzle filters.
- 8. Assail™ brand 70WP Insecticide is unstable in water pH below 4 and above 9. If necessary, buffer water to obtain optimum pH range.

Apply a minimum finished spray volume of 2 gallons per acre by air or 5 gallons per acre by ground unless otherwise directed under crop specific directions. Under heavy pest populations or dense foliage, use a minimum spray volume of 5 gallons per acre by air and a minimum spray volume of 10 gallons per acre by ground. For best results, it is important to obtain thorough and uniform spray coverage of the plant. For aerial application, select nozzles and pressure that deliver MEDIUM spray droplets as indicated in nozzle manufacturer's catalogs and in accordance with ASAE Standard S-572. The use of spray adjuvants, such as high quality non-ionic surfactants, also enhances coverage and may improve pest control. The addition of an adjuvant is recommended for all applications made to vegetables and to cotton when controlling whiteflies. The use of stickers is not recommended. Some adjuvants can cause adverse affects, such as spotting or burn to fruit or foliage. Follow adjuvant use directions. Consult your local Extension Service, Crop Advisor or Aventis CropScience representative for additional information. Use higher dosage rates for heavy infestations or dense foliage. The specific length of residual control depends on environmental factors, plant growth, dosage rate, and degree of insect infestation. When banding, determine the amount of chemical to use per acre by dividing the band width by the row width and multiplying by the appropriate broadcast rate.

To clean the sprayer after use, drain and flush with water. Use rinsings on crop according to label instructions or dispose of in an approved manner (See STORAGE AND DISPOSAL).

**Special Instructions for Tank Mixing Assail™ brand 70WP Insecticide**

When tank mixing Assail™ brand 70WP Insecticide with other products, introduce the products into the tank in the following order: (1) water soluble packets (2) wettable powders (such as Assail™ brand 70WP) (3) water dispersable granules (4) flowable liquids (5) emulsifiable concentrates and (6) adjuvants and/or oils. Always allow each product to fully disperse before adding the next product.

**ORCHARD AND VINEYARD CROPS**

**Recommended Mixing and Application Instructions**

Assail™ brand 70WP Insecticide is a dry powder formulation that readily disperses in water to form a spray, which may be applied by ground or air.

- 1. Fill tank ¼ - ½ full with the required amount of total spray volume of water.
- 2. Begin agitation and add product.
- 3. Continue to fill tank while directing a stream of water onto any floating product.
- 4. Allow mixing in tank for 2 minutes after filling or until thoroughly mixed before applying.
- 5. Maintain continuous agitation during mixing and application to assure uniform suspension. If mixture sits without agitation for extended periods, agitate the mixture for at least 10 minutes before use.
- 6. Plan ahead. Prepare only enough spray mixture as can be applied on the day of mixing.
- 7. Equip spray system with a 50-mesh inline filter, which will protect nozzles that are typically used. Nozzles may also be equipped with 50- mesh nozzle filters or 25 to 50 mesh (equivalent) slotted nozzle filters.
- 8. Assail™ brand 70WP Insecticide is unstable in water pH below 4 and above 9. If necessary, buffer water to obtain optimum pH range.

To achieve optimum pest control, it is important to obtain thorough and uniform spray coverage of the plant. Choose a finished spray volume appropriate for the size of tree or vine and amount of foliage which will provide thorough coverage throughout the canopy. For certain pests, also follow recommendations listed under crop specific directions.

The use of spray adjuvants, such as high quality non-ionic surfactants, also enhances coverage and may improve pest control. The use of stickers is not recommended. Some adjuvants can cause adverse affects, such as spotting or burn to fruit or foliage. Follow adjuvant use directions. Consult your local Extension Service, Crop Advisor or Aventis CropScience representative for additional information.

Use higher dosage rates for heavy infestations or dense foliage. The specific length of residual control depends on environmental factors, plant growth, dosage rate, and degree of insect infestation.

To clean the sprayer after use, drain and flush with water. Use rinsings on crop according to label instructions or dispose of in an approved manner (See STORAGE AND DISPOSAL).

**Special Instructions for Tank Mixing Assail™ brand 70WP Insecticide**

When tank mixing Assail™ brand 70WP Insecticide with other products, introduce the products into the tank in the following order: (1) water soluble packets (2) wettable powders (such as Assail™ brand 70WP) (3) water dispersable granules (4) flowable liquids (5) emulsifiable concentrates and (6) adjuvants and/or oils. Always allow each product to fully disperse before adding the next product.

**INTEGRATED PEST MANAGEMENT (IPM) USE OF THIS PRODUCT**

ASSAIL™ brand 70WP Insecticide has ovicidal activity against many pests which can be effectively utilized in IPM programs. ASSAIL™ 70WP has been shown to leave substantial populations of many beneficial insects and spiders after use. The lower rates allow for maximum beneficial survival and faster rebound of beneficial populations. Ovicidal control coupled with retention of beneficial insects and spiders can offer significant benefits to those producers utilizing integrated pest control programs.

**RESISTANCE MANAGEMENT**

Certain insects may develop resistance to insecticides after repeated use, especially at higher rates. Avoid treating these insects with consecutive applications of insecticides within the same class of chemistry. Rotate classes of chemistry to prevent consecutive generations of insects from being exposed to the same modes of action. If resistance is suspected, do not re-apply a chloronicotinyl insecticide. Make all applications based on scouting recommendations. Contact a crop advisor, local Extension Service agent or Aventis CropScience representative for scouting methodologies and pest thresholds for your area.

Acetamiprid is the active ingredient in ASSAIL™ brand 70WP Insecticide. It is a member of a class of chemicals known as chloronicotinyls. Also present in this class of chemicals is the active ingredient imidacloprid (PROVADO® and ADMIRE®) and thiamethoxam (CENTRIC™ and ACTARA™). The rotating of ASSAIL™ brand 70WP Insecticide with pesticides with different modes of action may delay or prevent insect resistance development. The use of ASSAIL™ 70WP should conform to resistance management strategies established for the use area. Consult your agricultural advisor, University contact or Extension Service for recommended pest management practices for your area. Use recommended integrated pest management practices so that you are not relying solely on chemical control in your crop production.

**RATE CONVERSION CHART FOR ALL OF THE FOLLOWING CROP USE DIRECTIONS**

**RATE CONVERSION CHART**

| <b>POUNDS AI PER ACRE</b> | <b>OUNCES PER ACRE</b> | <b>POUNDS ASSAIL™ 70WP INSECTICIDE PER ACRE</b> | <b>TREATED ACRES PER POUND ASSAIL™ 70WP INSECTICIDE</b> |
|---------------------------|------------------------|---|---|
| 0.025                     | 0.6                    | 0.04  | 28  |
| 0.038                     | 0.9                    | 0.05  | 18.4  |
| 0.05                      | 1.1                    | 0.07  | 14  |
| 0.075                     | 1.7                    | 0.11  | 9.3   |
| 0.1                       | 2.3                    | 0.14  | 7   |
| 0.125                     | 2.9                    | 0.18  | 5.6   |
| 0.15                      | 3.4                    | 0.21  | 4.7   |
| 0.2                       | 4.6                    | 0.29  | 3.5   |
| 0.25                      | 5.7                    | 0.36  | 2.8   |

**COTTON**

**SPRAY VOLUME FOR COTTON**

ASSAIL™ brand 70WP Insecticide should be applied in a minimum finished spray volume of 2 gallons per acre by aircraft and 5 gallons per acre by ground equipment. Under extreme pest populations or dense foliage, use a minimum spray volume of 5 gallons per acre by air and a minimum spray volume of 10 gallons per acre by ground.

| SITE                            | PEST                                    | DOSAGE PER ACRE |                                 | SPECIFIC DIRECTIONS  |
|---------------------------------|---|-----------------|---------------------------------|--|
|                                 |   | POUNDS ACTIVE   | OUNCES ASSAIL™ 70WP INSECTICIDE |  |
| COTTON                          | Aphids                                  | 0.025 - 0.05    | 0.6 - 1.1                       | Aphid species may differ in susceptibility to this product. If you are unsure of the aphid species present and its susceptibility, use the higher rate.<br>Begin applications when treatment thresholds have been reached.<br>Thorough coverage is important to obtain optimum control.  |
|                                 | Whitefly<br>Sweet Potato<br>Silver Leaf | 0.075 - 0.1     | 1.7 - 2.3                       | Begin applications when whitefly adults appear prior to development of nymphs. Do not wait until heavy populations have become established. For whitefly control, ASSAIL™ brand 70WP Insecticide should be applied in a minimum finished spray volume of 5 gallons per acre by aircraft and 15 gallons per acre by ground equipment. Make applications on a minimum 7 day interval as long as pest pressure continues. Use the high rate under heavy pressure.<br>Whiteflies have shown a tendency to develop resistance. For resistance management purposes, alternating applications of different chemical classes reduces the potential for resistance development. |
|                                 | Plantbugs<br>(Lygus spp.)               | 0.05            | 1.1                             | Begin applications when treatment thresholds have been reached.<br>Some species of plantbugs may be less susceptible and may only be suppressed by applications of this product. Two applications at 7 to 10 day intervals may be required to achieve control.<br>Thorough coverage is important to obtain optimum control.  |
|                                 | Fleahopper                              | 0.025 - 0.05    | 0.6 - 1.1                       | Begin applications when treatment thresholds have been reached.<br>Thorough coverage is important to obtain optimum control.   |
| FOR USE AS AN OVICIDE ON COTTON | Budworm<br>Bollworm                     | 0.025 - 0.05    | 0.6 - 1.1                       | Begin applications when treatment thresholds have been reached.<br>Thorough coverage is important to obtain optimum control.   |
|                                 | Whitefly                                | 0.075 - 0.1     | 1.7 - 2.3                       | Applications made for ovicidal control will not provide sustained control of migrating adults.   |

**RESTRICTIONS AND PRECAUTIONS: Cotton**

- For any of the pests listed above, use the high rate under heavy pest pressure.
- Do not make more than 4 applications per season.
- Do not apply more than once every 7 days.
- Do not apply less than 28 days before harvest (PHI = 28 days).
- Do not exceed a total of 0.4 lbs. active ingredient (9 ozs product) per acre per crop.
- There are no rotational crop plantback restrictions for this product.

**LEAFY VEGETABLES**

**SPRAY VOLUME FOR LEAFY VEGETABLES:** Apply in a minimum finished spray volume of 5 gallons per acre by air or 20 gallons per acre by ground.

| SITE   | PEST                                    | DOSAGE PER ACRE |                                 | SPECIFIC DIRECTIONS  |
|--|---|-----------------|---------------------------------|--|
|  |   | POUNDS ACTIVE   | OUNCES ASSAIL™ 70WP INSECTICIDE |  |
| <b>LEAFY VEGETABLES CROP GROUP</b><br>Such as: Amaranth, Arrugula, Cardoon, Celery, Celtuce, Chervil, Chrysanthemum (edible leaved, garland), Corn Salad, Cress (garden, upland), Dandelion, Dock, Endive, Florence Fennel, Lettuce (head, leaf), Orach, Parsley, Purslane (garden, winter), Radicchio, Rhubarb, Spinach (leaf, vine, New Zealand), Swiss hard | Aphids                                  | 0.035 – 0.054   | 0.8 – 1.2                       | Aphid species may differ in susceptibility to this product. If you are unsure of the aphid species present and its susceptibility, use the higher rate.<br>Begin applications when treatment thresholds have been reached.<br>Thorough coverage is important to obtain optimum control.  |
|  | Whitefly<br>Sweet Potato<br>Silver Leaf | 0.05 – 0.075    | 1.1 – 1.7                       | Begin applications when whitefly adults appear prior to development of nymphs. Do not wait until heavy populations have become established. For whitefly control, ASSAIL™ brand 70WP Insecticide should be applied in a minimum finished spray volume of 5 gallons per acre by aircraft and 20 gallons per acre by ground equipment. Make applications on a minimum 7 day interval as long as pest pressure continues. Use the high rate under heavy pressure.<br>Whiteflies have shown a tendency to develop resistance. For resistance management purposes, alternating applications of different chemical classes reduces the potential for resistance development. |

**RESTRICTIONS AND PRECAUTIONS: Leafy Vegetables**

- For any of the pests listed above, use the high rate under heavy pest pressure.
- Do not make more than 5 applications per season.
- Do not apply more than once every 7 days.
- Do not apply less than 7 days before harvest (PHI = 7 days).
- Do not exceed a total of 0.375 lbs. active ingredient (8.5 ozs product) per acre per season.
- There are no rotational crop plantback restrictions for this product.

### COLE CROPS

**SPRAY VOLUME FOR COLE CROPS:** Apply in a minimum finished spray volume of 5 gallons per acre by air or 20 gallons per acre by ground.

| SITE   | PEST                                    | DOSAGE PER ACRE |                                 | SPECIFIC DIRECTIONS  |
|--|---|-----------------|---------------------------------|--|
|  |   | POUNDS ACTIVE   | OUNCES ASSAIL™ 70WP INSECTICIDE |  |
| <b>COLE CROPS GROUP</b><br>Such as: Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Collards, Kale, Kohlrabi, Mizuna, Mustard Greens, Mustard Spinach, Rape Greens | Aphids                                  | 0.035 - 0.054   | 0.8 - 1.2                       | Aphid species may differ in susceptibility to this product. If you are unsure of the aphid species present and its susceptibility, use the higher rate.<br>Begin applications when treatment thresholds have been reached.<br>Thorough coverage is important to obtain optimum control.  |
|  | Whitefly<br>Sweet Potato<br>Silver Leaf | 0.05 - 0.075    | 1.1 - 1.7                       | Begin applications when whitefly adults appear prior to development of nymphs. Do not wait until heavy populations have become established. For whitefly control, ASSAIL™ brand 70WP Insecticide should be applied in a minimum finished spray volume of 5 gallons per acre by aircraft and 20 gallons per acre by ground equipment. Make applications on a minimum 7 day interval as long as pest pressure continues. Use the high rate under heavy pressure.<br>Whiteflies have shown a tendency to develop resistance. For resistance management purposes, alternating applications of different chemical classes reduces the potential for resistance development. |

**RESTRICTIONS AND PRECAUTIONS: Cole Crops**

- For any of the pests listed above, use the high rate under heavy pest pressure.
- Do not make more than 5 applications per season.
- Do not apply more than once every 7 days.
- Do not apply less than 7 days before harvest (PHI = 7 days).
- Do not exceed a total of 0.375 lbs. active ingredient (8.5 ozs product) per acre per season.
- There are no rotational crop plantback restrictions for this product.

## FRUITING VEGETABLES (Except Cucurbits)

**SPRAY VOLUME FOR FRUITING VEGETABLES:** Apply in a minimum finished spray volume of 5 gallons per acre by air or 20 gallons per acre by ground.

| SITE  | PEST                                    | DOSAGE PER ACRE |                                 | SPECIFIC DIRECTIONS  |
|---|---|-----------------|---------------------------------|--|
|   |   | POUNDS ACTIVE   | OUNCES ASSAIL™ 70WP INSECTICIDE |  |
| <b>FRUITING VEGETABLES CROP GROUP</b><br>Such as: Eggplant, Groundcherry, Pepino, Pepper (bell pepper, chili Pepper, cooking pepper, pimento, sweet pepper, Tomatillo, Tomato | Aphids                                  | 0.035 - 0.054   | 0.8 - 1.2                       | Aphid species may differ in susceptibility to this product. If you are unsure of the aphid species present and its susceptibility, use the higher rate.<br>Begin applications when treatment thresholds have been reached.   |
|   | Colorado Potato Beetle                  | 0.025 - 0.05    | 0.6 - 1.1                       | Thorough coverage is important to obtain optimum control.  |
|   | Whitefly<br>Sweet Potato<br>Silver Leaf | 0.05 - 0.075    | 1.1 - 1.7                       | Begin applications when whitefly adults appear prior to development of nymphs. Do not wait until heavy populations have become established. For whitefly control, ASSAIL™ brand 70WP Insecticide should be applied in a minimum finished spray volume of 5 gallons per acre by aircraft and 20 gallons per acre by ground equipment. Make applications on a minimum 7 day interval as long as pest pressure continues. Use the high rate under heavy pressure.<br><br>Whiteflies have shown a tendency to develop resistance. For resistance management purposes, alternating applications of different chemical classes reduces the potential for resistance development. |

**RESTRICTIONS AND PRECAUTIONS: Fruiting Vegetables (except Cucurbits)**

- For any of the pests listed above, use the high rate under heavy pest pressure.
- Do not make more than 4 applications per season.
- Do not apply more than once every 7 days.
- Do not apply less than 7 days before harvest (PHI = 7 days).
- Do not exceed a total of 0.3 lbs. active ingredient (7 ozs product) per acre per season.
- There are no rotational crop plantback restrictions for this product.

## CITRUS FRUITS

**SPRAY VOLUME FOR CITRUS FRUITS:** Apply in a minimum finished spray volume of 100 gallons per acre by ground.

| SITE  | PEST  | DOSAGE PER ACRE |                                 | SPECIFIC DIRECTIONS   |
|---|---|-----------------|---------------------------------|---|
|   |   | POUNDS ACTIVE   | OUNCES ASSAIL™ 70WP INSECTICIDE |   |
| <b>CITRUS FRUITS CROP GROUP</b><br>Such as: Calamondin, Citrus hybrids (chironja, tangelo, tangor), Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Orange (sour, sweet), Pummelo, Satsuma mandarin | Aphids  | 0.05 - 0.1      | 1.1 - 2.3                       | Aphid species may differ in susceptibility to this product. If you are unsure of the aphid species present and its susceptibility, use the higher rate.   |
|   | Citrus Thrips<br>Citrus Leafminer<br>Caribbean Black Scale<br>Glassywinged sharpshooter | 0.075 - 0.125   | 1.7 - 2.9                       | Begin applications when treatment thresholds have been reached.<br><br>Thorough coverage is essential for optimum control.  |
|   | Red Scale   | 0.15 - 0.25     | 3.4 - 5.7                       | Begin applications when treatment thresholds have been reached.<br><br>Adjust gallonage to tree size to insure coverage of inside wood and foliage (scales). Optimum gallonage for scale is 750 - 1500 GPA. |

### RESTRICTIONS AND PRECAUTIONS: Citrus Fruits

- For any of the pests listed above, use the high rate under heavy pest pressure.
- Do not make more than 5 applications per season.
- The last application may not exceed 0.25 pounds a.i. per acre.
- Do not apply more than once every 7 days.
- Do not apply less than 7 days before harvest (PHI = 7 days).
- Do not exceed a total of 0.55 lbs. active ingredient (12.5 ozs product) per acre per crop.

**POME FRUITS**

**SPRAY VOLUME FOR POME FRUITS:** Apply in a minimum finished spray volume of at least 80 gallons per acre by ground.

| SITE   | PEST               | DOSAGE PER ACRE |                                 | SPECIFIC DIRECTIONS  |
|--|--------------------|-----------------|---------------------------------|--|
|  |                    | POUNDS ACTIVE   | OUNCES ASSAIL™ 70WP INSECTICIDE |  |
| <b>POME FRUITS CROP GROUP</b><br>Such as: Apple, Crabapple, Loquat, Mayhaw, Quince, Pear | Aphids             | 0.05 – 0.075    | 1.1 – 1.7                       | Aphid species may differ in susceptibility to this product. If you are unsure of the aphid species present and its susceptibility, use the higher rate.<br>Begin applications when treatment thresholds have been reached.<br>Thorough coverage is essential for optimum control.<br>Application(s) for leafminer control must be made before larvae reach the tissue feeding stage.<br>Residual control of Codling Moth and Pyslla varies by rate. Use the higher rate for extended control.<br>Use of pheromone traps in conjunction with degree days are good indicators that can be used to determine leafminer and codling moth sprays.<br>Consult your local Extension Service, Crop Advisor or Aventis CropScience representative for additional information. |
|  | Teniform Leafminer | 0.05            | 1.1                             |  |
|  | Leafhoppers        | 0.05 – 0.075    | 1.1 – 1.7                       |  |
|  | Codling Moth       | 0.075 – 0.150   | 1.7 – 3.4                       |  |
|  | Pyslla             | 0.042 – 0.150   | 1.0 – 3.4                       |  |

**RESTRICTIONS AND PRECAUTIONS: Pome Fruits**

- For any of the pests listed above, use the high rate under heavy pest pressure.
- Do not make more than 4 applications per season.
- Do not apply more than once every 12 days.
- Do not apply less than 7 days before harvest (PHI = 7 days).
- Do not exceed a total of 0.60 lbs. active ingredient (13.5 ozs product) per acre per crop.

**GRAPES**

**SPRAY VOLUME FOR GRAPES:** Apply in a minimum finished spray volume of 5 gallons per acre by air or 20 gallons per acre by ground.

| SITE   | PEST   | DOSAGE PER ACRE |                                 | SPECIFIC DIRECTIONS   |
|--------|--|-----------------|---------------------------------|---|
|        |  | POUNDS ACTIVE   | OUNCES ASSAIL™ 70WP INSECTICIDE |   |
| GRAPES | Leafhoppers<br>Glassywinged sharpshooter<br>Aphids | 0.05            | 1.1                             | Begin applications when treatment thresholds have been reached.<br>Thorough coverage is important to obtain optimum control.<br>Aphid species may differ in susceptibility to this product. If you are unsure of the aphid species present and its susceptibility, use the higher rate. |

**RESTRICTIONS AND PRECAUTIONS: Grapes**

- Do not make more than 2 applications per season.
- Do not apply more than once every 14 days.
- Do not apply less than 7 days before harvest (PHI = 7 days).
- Do not exceed a total of 0.1 lb. active ingredient (2.3 ozs product) per acre per crop.

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**IMPORTANT: READ BEFORE USE**

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