GROUP 4 INSECTICIDE

ACTARA™ 25 WG

INSECTICIDE

COMMERCIAL

Water Dispersible Granule Insecticide for control of listed insect pests on potatoes and pome fruit

GUARANTEE:
Thiamethoxam ..............................................................25%

READ THE LABEL AND BOOKLET BEFORE USING
KEEP OUT OF THE REACH OF CHILDREN

CAUTION - EYE AND SKIN IRRITANT

REGISTRATION NO.:28408
PEST CONTROL PRODUCTS ACT

Syngenta Crop Protection Canada, Inc.
140 Research Lane, Research Park
Guelph, ON
N1G 4Z3
1-877-964-3682

Pamphlet
NOTICE TO USER

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the Pest Control Products Act to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

FIRST AID

IF POISONING IS SUSPECTED, call a physician or poison control centre IMMEDIATELY. Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

IF SWALLOWED, call a poison control centre 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 centre or doctor. Do not give anything by mouth to an unconscious person.

IF IN EYES, hold eye open and rinse slowly and gently with water for a few minutes. Remove contact lenses, if present, after the first five minutes. Continue to rinse eyes for 10-15 minutes. Seek medical attention IMMEDIATELY if irritation persists or is severe.

IF ON SKIN, remove all contaminated clothing. Wash contaminated skin with soap and plenty of water. If irritation occurs, obtain medical attention.

IF INHALED, remove victim from contaminated area to fresh air. Give artificial respiration if necessary. Obtain medical attention or contact a poison control centre.

TOXICOLOGICAL INFORMATION

There is no specific antidote for this product if ingested. If a large amount has been ingested and emesis is inadequate, lavage stomach. Treat symptomatically.

PRECAUTIONS

Safety Precautions:
1. Hazard to Humans and Domestic Animals.
2. KEEP OUT OF THE REACH OF CHILDREN and domestic animals. PREVENT ACCESS BY UNAUTHORIZED PERSONNEL.
3. Causes moderate eye irritation. Harmful if swallowed, inhaled or absorbed through skin. DO NOT get in eyes. Avoid contact with skin. Avoid inhalation of vapours and spray mist. Wash hands and face after handling and before eating or smoking.
4. Wear long-sleeved shirt, long pants, chemical resistant gloves, socks and boots when mixing and loading and wear long-sleeved shirt, long pants, socks and boots during application. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
5. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
6. Avoid contamination of feed and foodstuffs.
7. DO NOT APPLY BY AIR.
8. Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

**Environmental Precautions:**
DO NOT apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs, ditches and wetlands), estuaries or marine habitats.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

This product is toxic to bees exposed to direct treatment or to residues on blooming crops and weeds. DO NOT apply this product to flowering crops or weeds if bees are visiting the treatment area. Minimize spray drift to reduce harmful effects on bees in habitats close to the application site.

This product is toxic to certain beneficial insects. Minimize spray drift to reduce harmful effects on beneficial insects in habitats next to the application site such as hedgerows and woodland.

The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e.g. sandy soil) and/or the depth to the water table is shallow.

To reduce runoff from treated areas into aquatic habitats, consider the characteristics and conditions of the site before treatment. Site characteristics and conditions that may lead to runoff include, but are not limited to: heavy rainfall, moderate to steep slope, bare soil, poorly draining soil (e.g. soils that are compacted or fine textured such as clay).

Avoid application of this product when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's web site at [www.croplife.ca](http://www.croplife.ca).

**STORE IN A COOL, DRY PLACE.**

**DECONTAMINATION AND DISPOSAL**

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean up of spills.
CONTAINER DISPOSAL:

FOR DISPOSAL OF PLASTIC JUGS:
Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING
CALL 1-800-327-8633 (1-800-FASTMED)

GENERAL INFORMATION

ACTARA 25WG Insecticide controls listed sucking and chewing insects through contact and ingestion when used on the crops listed on this label.

ACTARA 25WG Insecticide should be applied to plant foliage when insect pest populations begin to build, but before pest populations reach economically damaging levels. Economic thresholds for pests controlled by ACTARA 25WG Insecticide may be available from your local agricultural authorities.

ACTARA 25WG Insecticide is taken up into foliage after application. However, thorough spray coverage is essential for best performance. Apply ACTARA 25WG Insecticide in sufficient water to ensure good coverage. See specific application information in the Use Directions section of this label. The use of higher water volumes will generally result in better coverage, especially under adverse conditions (e.g. hot, dry weather) or where a dense plant canopy exists.

ACTARA 25WG Insecticide is rainfast once the spray solution has dried on treated plants.

NOTE: DO NOT use a foliar application of ACTARA 25WG Insecticide following in-furrow or soil application of ACTARA 240SC Insecticide which also contains thiamethoxam.

APPLICATION PROCEDURES

Ground Application Only:
Spray nozzles should be selected which will provide accurate and uniform spray deposition. Use spray nozzles, which provide medium-sized droplets and reduce drift. To help ensure accuracy, calibrate sprayer before each use. For information on spray equipment and calibration, consult sprayer manufacturers and/or the local agricultural representative specialists.
Approve

Pamphlet Actara 25WG 2840

Apply ACTARA 25WG Insecticide using sufficient water volume to provide thorough and uniform coverage. For ground applications, use a minimum of 100 L/ha unless otherwise indicated on this label. In situations where a dense canopy exists and/or pest pressure is high, use greater water volumes. Avoid making applications under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. Avoid spray overlap.

Precautions:
1) When using water volumes of 100 L/ha, fine-sized droplets may be used to improve spray coverage.
2) Select nozzles that can produce the desired droplet sizes at the normal rated pressure range.
3) When spraying fine-sized droplets, carefully check all nozzles for flow and calibrate the sprayer.
4) The sprayer should travel at a uniform speed across the field.
5) Monitor environmental conditions and follow Recommendations to Avoid Spray Drift carefully.

Field sprayer application: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) fine classification.

Airblast application: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT direct spray above plants to be treated. Turn off outward pointing nozzles at row ends and outer rows. DO NOT apply when wind speed is greater than 16 km/h at the application site as measured outside of the treatment area on the upwind side.

DO NOT apply by air.

Buffer zones:
The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands).

<table>
<thead>
<tr>
<th>Method of application</th>
<th>Crop</th>
<th>Buffer Zones (metres) Required for the Protection of:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Freshwater Habitat of Depths:</td>
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<tr>
<td></td>
<td></td>
<td>Less than 1 m 1 - 3 m Greater than 3 m</td>
</tr>
<tr>
<td>Airblast (early growth stage)</td>
<td>Apple, pear, crabapple</td>
<td>4 3 1</td>
</tr>
</tbody>
</table>

MIXING PROCEDURES

1. Add 1/2 of the required amount of water to the mix tank.
2. With the agitator running, add the desired amount of ACTARA 25WG Insecticide to the tank.
3. Continue agitation while adding the remainder of the water.
4. Begin application of the solution after ACTARA 25WG Insecticide has completely dispersed into the mix water.
5. Maintain agitation until all of the mixture has been applied.
Prepare no more spray mixture than is needed for the immediate operation. Thoroughly clean spray equipment before using this product. Vigorous agitation is necessary for proper dispersal of the product. Maintain maximum agitation throughout the spraying operation. Do not let the spray mixture stand overnight in the spray tank. Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area. Keep product container tightly closed when not in use.

USE DIRECTIONS

<table>
<thead>
<tr>
<th>CROP</th>
<th>PEST</th>
<th>PRODUCT RATE g/ha</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potato</td>
<td>Colorado potato beetle</td>
<td></td>
<td>Apply before pests reach damaging levels. Scout fields and treat again 7-10 days later if populations rebuild to potentially damaging levels.</td>
</tr>
<tr>
<td>Potato</td>
<td>Aphids (including green peach, potato, buckthorn, and foxglove aphid)</td>
<td>105 g/ha</td>
<td>Potato leafhopper: Control may require the use of two applications made at a 7-10 day interval.</td>
</tr>
<tr>
<td>Potato</td>
<td>Potato leafhopper</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks: Do not exceed a total of 210 g of ACTARA Insecticide per hectare during each growing season. Allow at least 7 days between applications. Do not apply closer than 7 days before harvest (7 day PHI). Use sufficient water volume to ensure thorough coverage of foliage. Do not use less than 100 L/ha for ground applications.

DO NOT APPLY BY AIR

Pollinator Precautions:
This product is highly toxic to bees exposed to direct treatment or to residues on blooming crops and weeds. Do not apply ACTARA 25WG Insecticide or allow it to drift onto blooming plants if bees are visiting the treated area. After an ACTARA 25WG Insecticide application, wait at least 5 days before placing the beehives in the treated field.
<table>
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</table>
| Apples     | Plum curculio Mullein bug        | 315 g/ha          | **PREBLOOM:** one application only
Mullein bug: Apply only when thresholds have been reached.
Plum Curculio: Consult local extension personnel for recommendations relevant to your area.

|                  |                                  | 315-385 g/ha      | **POSTBLOOM:** up to 2 applications
Mullein bug: Make first application immediately after petal fall, when thresholds have been reached. A second application may be necessary if pest pressure continues.
Plum curculio: Make first application immediately following petal fall. A second application may be necessary if pest pressure continues. |
| Crabapples     | Spotted tentiform leafminer      | 315 g/ha          | **PREBLOOM:** one application only
Apply when eggs are being deposited.

**POSTBLOOM:** up to 2 applications
To control first generation populations make application immediately following petal fall. For control of second and third generations make applications to coincide with egg deposition.

|                  | Rosy apple aphid                 | 160 g/ha          | **PREBLOOM:** one application only
Apply when aphid colonies are first observed at the green tip through pink growth stage before leaf curling occurs.

**POSTBLOOM:** up to 2 applications
Apply before leaf curling occurs.

**DO NOT APPLY MORE THAN 2 APPLICATIONS TOTAL PER SEASON (MAXIMUM 2 APPLICATIONS POSTBLOOM OR ONE APPLICATION PREBLOOM PLUS ONE APPLICATION POSTBLOOM).**

Apply before pests reach damaging level. Apply higher rates for heavy infestations and for improved residual control. Scout fields and treat again if populations rebuild to potentially damaging levels. Do not make more than one prebloom application. Do not apply more than 2 applications total per season (maximum 2 applications postbloom or one application prebloom plus one application postbloom). Do not apply more than 770 g product per hectare per season per crop. ACTARA 25WG Insecticide may be applied up to 60 days before harvest (60 day PHI). Allow a minimum of 10 days between applications. A minimum spray volume of 1000 litres water/ha is recommended. If adequate spray coverage of the plant canopy requires less solution per hectare, adjust the spray volume accordingly while using the same spray concentration (ratio of grams of product to litres of water).
REMARKS: DO NOT APPLY ACTARA 25WG INSECTICIDE DURING BLOOM.

Pollinator Precautions:
This product is highly toxic to bees exposed to direct treatment or to residues on blooming crops and weeds. Do not apply ACTARA 25WG Insecticide after pre-bloom (early pink growth stage) or before post bloom (petal fall growth stage). Do not apply ACTARA 25WG Insecticide or allow it to drift onto blooming plants if bees are visiting the treated area. This is especially critical if there are adjacent orchards that are blooming (Refer to Recommendations to Avoid Spray Drift for additional information). If bees are foraging in the orchard ground cover and it contains any blooming plants or weeds, always remove flowers before making an application. This may be accomplished by mowing, diskling, mulching, flailing, or applying a labeled herbicide. This restriction does not apply to blooming crops (such as potatoes) that are not attractive to bees. After an ACTARA 25WG application, wait at least 5 days before placing the beehives in the treated field.

DO NOT APPLY BY AIR.

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<tr>
<td>Oriental pear</td>
<td>Pear psylla</td>
<td>315-385 g/ha</td>
<td>POSTBLOOM Only: up to 2 applications</td>
</tr>
<tr>
<td></td>
<td>Plum curculio</td>
<td></td>
<td>Pear psylla: Apply immediately following petal fall. A second application may be necessary if pest pressure continues.</td>
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DO NOT APPLY MORE THAN 2 APPLICATIONS TOTAL PER SEASON.
Apply before pests reach damaging levels. Apply higher rates for heavy infestations and for improved residual control. Scout fields and treat again if populations rebuild to potentially damaging levels. ACTARA 25WG Insecticide may be applied up to 60 days before harvest (60 day PHI). Do not apply more than 2 applications total per season. Do not apply more than 770 g product per hectare per season per crop. Allow a minimum of 10 days between applications. A minimum spray volume of 1000 litres water/ha is recommended. If adequate spray coverage of the plant canopy requires less solution per hectare, adjust the spray volume accordingly while using the same spray concentration (ratio of grams of product to litres of water).

REMARKS: DO NOT APPLY ACTARA 25WG INSECTICIDE DURING BLOOM.

Pollinator Precautions:
This product is highly toxic to bees exposed to direct treatment or to residues on blooming crops and weeds. Do not apply ACTARA 25WG Insecticide before postbloom (petal fall). Do not apply ACTARA 25WG Insecticide or allow it to drift onto blooming plants if bees are visiting the treated area. This is especially critical if there are adjacent orchards that are blooming (Refer to Recommendations to Avoid Spray Drift for additional information). If bees are foraging in the orchard ground cover and it contains any blooming plants or weeds, always remove flowers before making an application. This may be accomplished by mowing, diskling, mulching, flailing, or applying a labeled herbicide. This restriction does not apply to blooming crops (such as potatoes) that are not attractive to bees. After an ACTARA 25WG application, wait at least 5 days before placing the beehives in the treated field.

DO NOT APPLY BY AIR.
Rotational Restrictions

Treated areas may be replanted immediately following harvest or as soon as practical following the last application with any crop listed on this label or to sorghum, wheat, barley, and canola. Any cover crop planted for erosion control or soil improvement may be planted as soon as practical following the last application. However, the cover crop may not be grazed or harvested for food or feed. For all other crops, a 120 day plant-back interval must be observed.

Resistance-Management Recommendations

For resistance management, please note that ACTARA 25WG Insecticide contains a Group 4 insecticide (neonicotinoid class of chemistry). Any insect population may contain individuals naturally resistant to ACTARA 25WG Insecticide and other Group 4 insecticides. The resistant individuals may dominate the insect population if this group of insecticides is used repeatedly in the same field. Other resistance mechanisms that are not linked to site of action but are specific for individual chemicals, such as enhanced metabolism, may also exist. Because resistance development cannot be predicted, the use of this product should conform to sound resistance management strategies established for the crop and use area.

To delay insecticide resistance:

Where possible, rotate the use of ACTARA 25WG Insecticide or other Group 4 insecticides with different groups that control the same pests in a field.

Use tank mixtures with miticides/insecticides from a different group when such use is permitted.

Insecticide use should be based on an IPM program that includes scouting, record keeping, and considers cultural, biological and other chemical control practices.

Monitor treated pest populations for resistance development.

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 company representatives at 1-87-SYNGENTA (1-877-964-3682) or at www.syngenta.ca.