RLP
APPROVED

Product Name: ALTACOR HORT INSECTICIDE
APVMA Approval No: 69957 / 109980

Label Name:	ALTACOR HORT INSECTICIDE
Signal Headings:	READ SAFETY DIRECTIONS BEFORE OPENING OR USING
Constituent Statements:	350 g/kg CHLORANTRANILIPROLE
Mode of Action:	GROUP 28 INSECTICIDE
Statement of Claims:	For the control of Lepidopteran species of insect pests in certain Fruit and Almond crops, as per the Directions for Use
Net Contents:	180g (pre-measure pack) 3.5kg (contains 4 measure packs) 5kg 720g
Restraints:	This section contains file attachment.
Directions for Use:	This section contains file attachment
Withholding Periods:	WITHHOLDING PERIODS HARVEST ALMONDS, POME AND STONE FRUIT: DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION GRAPES: DO NOT HARVEST FOR 8 WEEKS AFTER APPLICATION GRAZING – ALL TREATED CROPS DO NOT GRAZE OR CUT FOR STOCK FOOD

Trade Advice:	EXPORT STATEMENT: Import tolerances for produce treated with Altacor Hort insecticide may be pending in some countries. Consult with your exporter or FMC before applying Altacor Hort insecticide to export crops.

General Instructions:	This section contains file attachment.

Resistance Warning:	For insecticide resistance management Altacor Hort insecticide is a Group 28 insecticide. Some naturally occurring insect biotypes resistant to Altacor Hort insecticide and other Group 28 insecticides may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if Altacor Hort insecticide and other Group 28 insecticides are used repeatedly. The effectiveness of Altacor Hort insecticide on resistant individuals could be significantly reduced. Since the occurrence of resistant individuals is difficult to detect prior to use FMC accepts no liability for any losses that may result from the failure of Altacor Hort insecticide to control resistant insects. Strategies to minimise the risk of insecticide resistance are available. To help prevent the development of resistance to Altacor Hort observe the following instructions: • Use Altacor Hort in accordance with the current Insecticide Resistance Management (IRM) strategy for your region. • Apply Altacor Hort or other Group 28 insecticides using a “window” approach to avoid exposure of consecutive insect pest generations to the same mode of action. Multiple successive applications of Altacor Hort or other Group 28 insecticides are acceptable if they are used to treat a single insect generation. • Following a “window” of Altacor Hort or other Group 28 insecticides, rotate to a “window” of applications of effective insecticides with a different mode of action. • The total exposure period of all “Group 28-active windows” applied throughout the crop cycle (from seedling to harvest) should not exceed 50% of the crop cycle. • Incorporate IPM techniques into the overall pest management program. • Monitor insect populations for loss of field efficacy. For further information contact your farm chemical supplier, consultant, local Department of Agriculture or Primary Industries, or local FMC Representative. For additional information on insect resistance, modes of action and monitoring, visit the Insecticide Resistance Action Committee (IRAC) on the web at http://www.irac-online.org

Precautions:	

Protections:	PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT Dangerous to aquatic invertebrates. Drift and run off from treated areas may be hazardous to aquatic organisms in neighbouring areas. DO NOT contaminate streams, rivers or waterways with the chemical or used containers. PROTECTION OF LIVESTOCK Based on Good Agricultural Practices (GAP), Altacor Hort should not be applied when bees are actively foraging.

Storage and Disposal:	KEEP OUT OF REACH OF CHILDREN. Store in the closed, original container in a dry, well-ventilated area, as cool as possible out of direct sunlight.

	180 g bag Single rinse before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on site. Puncture and bury empty bags in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty bags and product should not be burnt. 720 g cardboard box DO NOT dispose of undiluted chemicals on site. Puncture or shred and bury empty boxes in local authority landfill. If no landfill is available, bury the container below 500 mm in a disposal pit specifically marked and setup for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should NOT be burnt. 3.5 and 5 kg container Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should NOT be burnt.

Safety Directions:	May irritate eyes. Avoid contact with eyes. Wash hands after use.

First Aid Instructions:	If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26.

First Aid Warnings:	

RESTRAINTS:
DO NOT apply if rainfall is expected within 2 hours of application.
DO NOT apply with aircraft.

SPRAY DRIFT RESTRAINTS
DO NOT apply when wind speed is less than 3 or more than 20 kilometres per hour as measured at the application site.
DO NOT apply during surface temperature inversion conditions at the application site.

Users of this product MUST make an accurate written record of the details of each spray application within 24 hours following application and KEEP this record for a minimum of 2 years.
The spray application details that must be recorded are:

1. date with start and finish times of application;
2. location address and paddock/s sprayed;
3. full name of this product;
4. amount of product used per hectare and number of hectares applied to;
5. crop/situation and weed/pest;
6. wind speed and direction during application;
7. air temperature and relative humidity during application;
8. nozzle brand, type, spray angle, nozzle capacity and spray system pressure measured during application;
9. name and address of person applying this product.

(Additional record details may be required by the state or territory where this product is used.)

MANDATORY NO-SPRAY ZONES
DO NOT apply if there are aquatic and wetland areas including aquacultural ponds, surface streams and rivers downwind from the application area and within the mandatory no-spray zones shown in Table 1 below.

Table 1: No-spray zones for protection of the aquatic environment

CROP	Downwind mandatory no-spray zone
Grapes	20 metres
Almonds, Pome and Stone fruit	50 meters

DIRECTIONS FOR USE

For use in all States where appropriate for the crop and/or insect pest.

CROP	PEST	RATE/100 L	WHP	CRITICAL COMMENTS
ALL CROPS Apply by dilute or concentrate spraying equipment. Apply the same total amount of product to the target crop whether applying this product by dilute or concentrate spraying methods. Refer to Application section of the label. Thorough fruit and nut coverage is essential. Use in accordance with AIRAC Insecticide Resistance Management Strategy guidelines.				
Almonds	Carob moth (*Ectomyelois ceratoniae)*	**Dilute spraying:** 18 g + non ionic surfactant @ 15 gai/100 L **Concentrate spraying:** Refer to **Mixing/ Application** section	14 days	Monitor moth flights through trapping. Applications can be aimed at reducing moth number by targeting mummies. Alternatively, applications should be made when 1 - 5% of the almond hull sutures are opening. If required, retreat at minimum interval of 7 days. Apply by airblast sprayer or equivalent and ensure thorough coverage of all leaf and nut surfaces. **DO NOT** apply more than 2 applications of Altacor® Hort per season. **DO NOT** treat successive generations with Altacor® Hort, alternate with a different mode of action insecticide.
Pome fruit including Apples Nashi Pears Pears	Codling moth (*Cydia pomonella*) Budworms (*Helicoverpa* spp). Oriental fruit moth (*Grapholita molesta*)	**Dilute spraying:** 9 g + non ionic surfactant @ 15 gai/100 L **Concentrate spraying:** Refer to **Mixing/ Application** section	14 days	**DO NOT** make more than three (3) applications per crop per season. Codling moth: A maximum of three (3) applications of Altacor® Hort are to be applied at 14 – 21 day intervals commencing at petal fall (or before 110 Degree Days after Codling moth are detected in traps) until late December. Further treatments should be made with an alternate mode of action insecticide. **Or** a maximum of three (3) applications can be applied commencing from the end of December at 14 - 21 day intervals following treatments with an alternate mode of action product. Oriental fruit moth: When treating the first generation, apply the initial treatment before 110 Degree Days after Oriental fruit moths are detected in traps. The above programme, when commenced at petal fall, will also control Budworms.
	Lightbrown apple moth (*Epiphyas postvittana)*			Lightbrown apple moth: A maximum of three (3) applications of Altacor® Hort are to be applied at 14 - 21 day intervals commencing at petal fall or apply at 140 Degree Days after Lightbrown apple moths are detected in traps. Further treatments should be made with alternative mode of action insecticides.
Stone fruit including Apricot Cherries Nectarines Peaches Plums	Oriental fruit moth *(Grapholita molesta)*	**Dilute spraying:** 12 g + non ionic surfactant @ 15 gai/100 L **Concentrate spraying:** Refer to **Mixing/ Application** section		**DO NOT** make more than two (2) applications per crop per season with a minimum 14 days between applications.. When treating the first generation, apply the initial treatment before 110 Degree Days after Oriental fruit moths are detected in traps. A maximum of two (2) applications of Altacor Hort™ (minimum of 14 days between applications) to each crop. Target sprays against eggs and newly hatched larvae before they become entrenched. Further treatments should be made with alternative mode of action insecticides.

CROP	PEST	RATE/100 L	WHP	CRITICAL COMMENTS
	Lightbrown apple moth (*E. postvittana)*	**Dilute spraying:** 9 g + non ionic surfactant @ 15 gai/100 L **Concentrate spraying:** Refer to **Mixing/ Application** section		A maximum of two (2) applications of Altacor® Hort are to be applied with a minimum spray interval of 14 days commencing at 140 Degree Days after Lightbrown apple moths are detected in traps. Further treatments should be made with alternative mode of action insecticides.
Grapes	Lightbrown apple moth (*E. postvittana*) Grapevine moth (*Phalaenoides glycinae*)	**Dilute spraying:** 9 g + non ionic surfactant @ 15 gai/100 L **Concentrate spraying:** Refer to **Mixing/ Application** section	8 weeks	**DO NOT** make more than two (2) applications per crop per season. Applications to be timed for egg hatch (140 Degree Days after a detected moth flight). **DO NOT** re-treat within fourteen (14) days. A final application may be applied up to bunch closure. **DO NOT** apply after bunch closure. Concentrated spray: **DO NOT** apply in volumes less than 250 L/ha. This low water volume is dependent on the suitability of concentrated spray application equipment. More reliable application may be gained through increased water volumes.

NOT TO BE USED FOR ANY PURPOSE OR IN ANY MANNER CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION.

GENERAL INSTRUCTIONS

Altacor® Hort™ insecticide has been specifically designed for use in Integrated Pest Management (IPM) schemes. Altacor® Hort™ insecticide is an anthranilic diamide insecticide in the form of a water dispersible granule. Altacor® Hort™ insecticide is particularly active on Lepidopteran insect pests, primarily as a larvicide. Before application monitor insect populations to determine whether or not there is a need for application of Altacor® Hort™ insecticide based on locally determined economic thresholds. More than one treatment of Altacor® Hort™ insecticide may be required to control a population of pests.

MIXING

Fill spray tank to ¼ to ½ full of water. Measure the amount of Altacor® Hort™ insecticide required for the area to be sprayed. Add Altacor® Hort™ insecticide directly to the spray tank with the agitation engaged. Mix thoroughly to disperse the insecticide. Once dispersed, the material must be kept in suspension at all times by continuous agitation. Use mechanical or hydraulic means, **DO NOT** use air agitation, premix or slurry.

If spray solution is left standing, ensure thorough re-agitation of the spray mix until fully resuspended. **DO NOT** allow spray mix to sit overnight, as resuspension may be difficult.

SURFACTANT/WETTING AGENT

Use a non-ionic surfactant/wetting agent at 15 g active/100 L, (e.g. Agral® 600 @ 25 mL/100 L). **DO NOT** use BS1000® or Activator®-90 as it may cause crop phytotoxicity.

DO NOT add a non-ionic surfactant/wetting agent if:

- mixing with another product which already contains a surfactant and/or the product label advises not to add a surfactant.
- mixing with a liquid fertiliser

APPLICATION

Minimising Spray Drift

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator must consider all these factors when making application decisions.
The most effective way to reduce drift potential is to apply large droplets (volume mean diameter (VMD) >250 - 300 microns). 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 MINIMISE DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVOURABLE ENVIRONMENTAL CONDITIONS. When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

Ground application

Use a sprayer fitted with high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets. Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size, DOES NOT improve canopy penetration and may increase drift potential. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE. 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. For orchard/vineyard sprayers avoid directing spray above trees and always turn-off outward pointing nozzles at row ends and outer rows.

Dilute Spraying

- Use a sprayer designed to apply high volumes of water up to the point of run-off and matched to the crop being sprayed.
- Set up and operate the sprayer to achieve even coverage throughout the crop canopy. Apply sufficient water to cover the crop to the point of runoff. Avoid excessive run-off.
- The required water volume may be determined by applying different test volumes, using different settings on the sprayer, from industry guidelines or expert advice.
- Add the amount of product specified in the Directions for Use table for each 100 L of water. Spray to the point of run-off.
- The required dilute spray volume will change and the sprayer set up and operation may also need to be changed, as the crop grows.

- Always apply sufficient water to cover the crop to the point of runoff, otherwise under dosing will occur and disease control may be inadequate.

Concentrate Spraying

- Use a sprayer designed and set up for concentrate spraying (that is a sprayer which applies water volumes less than those required to reach the point of run-off) and matched to the crop being sprayed.
- Set up and operate the sprayer to achieve even coverage throughout the crop canopy using your chosen water volume.
- Determine an appropriate dilute spray volume (see Dilute Spraying above) for the crop canopy. This is needed to calculate the concentrate mixing rate.
- The mixing rate for concentrate spraying can then be calculated in the following way:

Example Only

1. Dilute spray volume as determined above: For example 1,500 L/ha
2. Your chosen concentrate spray volume: For example 500 L/ha
3. The concentration factor in this example is : 3 times (i.e. 1,500 L divided by 500 L = 3)
4. If the dilute label rate is 150 g/100 L, then the concentrate rate becomes 3 x 150, that is, 450 g/100 L of concentrate spray.

- The chosen spray volume, amount of product per 100 L of water, and the sprayer set up and operation may need to be changed as the crop grows.
- For further information on concentrate spraying, users are advised to consult relevant industry guidelines, undertake appropriate competency training and follow industry Best Practices.

Compatibility

Since formulations may be changed and new ones introduced, it is recommended that users premix a small quantity of the desired tank mix and observe possible adverse changes (settling out, flocculation etc). Avoid complex tank mixtures of several products or very concentrated spray mixtures. Altacor® is compatible with Captan*, Dextrolac*, Delan*, Fulasin*, mancozeb, Omite*, Polyram* and Systhane*.

The mixing sequence recommended is: water soluble bags, dry flowable or water dispersible granules (Altacor®), wettable powders, water based suspension concentrates, water soluble concentrates, oil based suspension concentrates, emulsifiable concentrates, adjuvants and surfactants, soluble fertilisers.

Spray Equipment Cleanout

Prior to application, start with clean, well-maintained application equipment. Immediately following application, thoroughly clean all spray equipment to reduce the risk of forming hardened deposits which might become difficult to remove. Drain spray equipment. Thoroughly rinse sprayer and flush hoses, boom, and nozzles with clean water.

Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment. **DO NOT** clean near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.