

DANGER
KEEP OUT OF REACH OF CHILDREN

WARLOCK[®]

IINSECTICIDE

**For the control of Leafrollers on Avocados, Grapes, Kiwifruit and
Pipfruit**

ACTIVE INGREDIENT:

Contains 19.2 g/L emamectin benzoate in the form of
an emulsifiable concentrate

Adama New Zealand Limited
Level 1, 19 Elms Street,
Wakatu Estate
Stoke 7011 New Zealand
PO Box 1799
Nelson 7040 New Zealand

NET CONTENTS
**500mL, 1L,
5L, 10L
& 20 L**

Telephone 03 543 8275
adama.com

HAZARD CLASSIFICATION

HSNO Classifications 3.1D, 6.1E, 6.3B, 6.4A, 6.8A, 6.8C, 6.9B, 9.1A, 9.3B, 9.4A

**HARMFUL****ECOTOXIC****TOXIC****APPROVED HANDLER:**

This product must be under the control of an approved handler during use

RECORD KEEPING - Records of use must be kept under certain circumstances – see The New Zealand Standards for Management of Agrichemicals (NZS8409) for details.**TRACKING:** This product must be tracked – see SDS for details.**FLAMMABILITY****Warning – Combustible liquid. Do not store or use near heat or naked flame. Will burn if ignited.****TOXICITY****Danger- May be fatal if swallowed and enters airways. May damage fertility or the unborn child. May cause harm to breast-fed children.****Warning- May be harmful if inhaled. Causes mild skin irritation. Causes eye irritation. May cause damage to organs through prolonged or repeated exposure.****ECOTOXICITY****Very toxic to fish or aquatic organisms. Higher risk of toxic effects in estuarine environments.**

Avoid contamination of any water supply with product or empty container. Direct contamination or spray drift to any aquatic environment MUST be strictly avoided.

Harmful to terrestrial vertebrates.**Very toxic to terrestrial vertebrates.****Toxic to bees.** Spray MUST NOT contact plants in flower if bees are actively foraging.**HANDLING PRECAUTIONS**

Keep out of reach of children.

Do not eat, drink or smoke while using.

DO NOT carry on a passenger service vehicle.

Avoid contamination of any water supply with chemical or empty container. Direct contamination or spray drift to any aquatic environment MUST be strictly avoided.

Equipment

Apply using accurately calibrated and maintained equipment in accordance with The New Zealand Standard for the Management of Agrichemicals (NZ8409). Spray machinery should be thoroughly cleaned after use

Storage

Store in the original, unopened container in a cool, dry place, out of direct sunlight and away from stockfeed, seeds, fertilisers or foodstuffs. Avoid temperatures below 0°C or above 35°C.

As a Class 9 Substance with Ecotoxicity Classifications storage of WARLOCK INSECTICIDE must be carried out in such a manner as to prevent contamination of waterways. It is recommended that The New Zealand Standard for the Management of Agrichemicals (NZS8409) is followed as a means of meeting the secondary containment provisions of the HSNO Emergency Management Regulations. See Safety Data Sheet for further information.

Protective clothing

When mixing or applying wear appropriate clothing including impervious butyl elbow-length gloves, hat, boots, overalls and suitable respiratory and eye protection. Remove protective clothing and wash hands and face thoroughly with soap and water before meals and after work.

Spillage

Exclude all bystanders from the vicinity of the spill and prevent material from entering waterways. Wear appropriate protective clothing in the Precautions box of this label to clean up spills. Recover spilt product with sawdust or other inert absorbent material (such as vermiculite, earth, sand or synthetic absorbent substance) and place in waste containers. Wash area with water and alkaline detergent then absorb any remaining liquid with further inert material. Dispose of the waste safely in an approved landfill. Deal with spillages immediately and prevent contamination of watercourses, drains, streams, ponds. If this is likely to occur, warn local authorities immediately.

Product Disposal

Dispose of this product only by using according to the label, or at an approved landfill or other approved facility.

Container DisposalEnsure container is empty. Triple rinse empty container and add rinsate to spray tank. Recycle empty container through Agrecovery (0800 247 326, www.agrecovery.co.nz). Otherwise crush or puncture and bury in a suitable landfill. DO NOT reuse this container for any other purpose.

FIRST AID:

For advice, contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor immediately. If inhaled, move the victim to fresh air immediately. Maintain half upright position if breathing is difficult. Carry out artificial respiration if necessary. If splashed in the eyes, flush with clean water. If spilt on the skin remove contaminated clothing and wash affected areas of skin with soap and water.

SAFETY DATA SHEET

A Safety Data Sheet for this product is available from Adama New Zealand Limited on request. Call 03 543 8275.

GENERAL INFORMATION

WARLOCK® INSECTICIDE has translaminar activity but is not systemic, therefore thorough coverage is essential. After application, WARLOCK INSECTICIDE quickly moves into young leaves from where it is taken up by the feeding Leafrollers. WARLOCK INSECTICIDE takes about 4 days to achieve maximum control.

Note: DO NOT apply if rainfall is expected before spray has dried, as reduced efficacy may result.

The addition of a non-ionic surfactant is required in all uses. A reduction in efficacy may result if a non-ionic surfactant at recommended label rates is not included.

Crop monitoring: For effective Leafroller control, regularly monitor crops during the season.

RESISTANCE MANAGEMENT

WARLOCK INSECTICIDE contains emamectin benzoate, which belongs to the avermectin class of insecticides. Intensive use of WARLOCK INSECTICIDE or other insecticides with the same mode of action may lead to a selection of resistant insects. To minimise this risk, use WARLOCK INSECTICIDE strictly in accordance with label directions.

INTEGRATED PEST MANAGEMENT

WARLOCK INSECTICIDE is compatible with IPM programmes using the predator mites *Typhlodromus pyri*, *Phytoseiulus persimilis* and *T. occidentalis*.

ENVIRONMENTAL INFORMATION

DO NOT apply when weather conditions favour drift from the target area. Very toxic to fish and other aquatic organisms. Higher risk of toxic effects in estuarine environments. When WARLOCK INSECTICIDE comes into contact with soil, it readily and tightly binds to the soil. WARLOCK INSECTICIDE that is not absorbed into plants is quickly degraded.

DIRECTIONS FOR USE:

It is an offence to use this product on animals.

DO NOT apply more than 310 mL/ha WARLOCK INSECTICIDE per application.

The rates suggested are for high volume spraying to thoroughly wet the crop without run-off. For concentrate spraying, adjust the dilution rate accordingly.

Crop	Pest	Rate	Critical Comments
Apples, Pears	Leafrollers	5.2 mL in 100 litres plus a non-ionic wetting agent at label rates as a dilute application. Apply in sufficient water to ensure 105 mL of WARLOCK INSECTICIDE / ha on mature trees.	Ensure thorough coverage. Apply WARLOCK INSECTICIDE during the pre-harvest period for late season control of Leafrollers. Apply no more than 3 sprays at 14 day intervals or when the pest threshold is reached.
Avocados		10.5 mL in 100 litres plus a non-ionic wetting agent at label rates as a dilute application.	Ensure thorough coverage. Apply no more than 6 sprays at 21 day intervals or when the pest threshold is reached.
Grapes		10.5 mL in 100 litres plus a non-ionic wetting agent at label rates. Apply in sufficient water to ensure 105 mL of WARLOCK INSECTICIDE / ha is applied.	Ensure thorough coverage. Apply no more than 2 applications of WARLOCK INSECTICIDE per season. WARLOCK INSECTICIDE can be applied at any time from post-flowering to pre bunch closure. For optimal control of Leafrollers, apply soon after egg lay when larvae become webbed into the bunches. Eggs laid on new growth after application may not be controlled.

Crop	Pest	Rate	Critical Comments
Kiwifruit	Leafrollers	5.2 mL in 100 litres plus a non-ionic surfactant at label rates as a dilute application. Apply in sufficient water (approx. 2000 L/ha) to ensure not less than 105 mL / ha of WARLOCK INSECTICIDE on a full crop canopy.	Ensure thorough coverage. Apply WARLOCK INSECTICIDE at fruit set followed by two further applications at 21 day intervals. Alternatively, apply the first WARLOCK INSECTICIDE at fruit set with further applications if crop monitoring shows a need. Apply no more than 3 applications of WARLOCK INSECTICIDE per season. The final spray must NOT be made within 42 days of harvest.

MIXING

Add the required amount of WARLOCK INSECTICIDE to the partly filled spray tank, and then add the remainder of the water while maintaining agitation. Continue agitation while spraying.

COMPATIBILITY

As formulations of other manufacturer's products are beyond the control of Adama, all mixtures should be tested prior to use.

WITHHOLDING PERIODS

It is an offence for users of this product to cause residues exceeding the relevant MRL in the New Zealand (Maximum Residue Limits of Agricultural Compounds) Food Standards.

Avocados	3 days
Grapes	DO NOT apply after bunch closure
Kiwifruit	42 days
Apples, pears	3 days

For export crops – contact your exporter or Industry crop advisor.

RE-ENTRY PERIOD

DO NOT enter treated area for 24 hours unless wearing appropriate personal protective equipment (PPE).

CONDITIONS OF SALE

Adama New Zealand Limited will not accept any responsibility whatsoever and howsoever arising and whether for consequential loss or otherwise in connection with the supply of these goods other than the responsibility for the merchantable quality of the goods and such responsibilities mandatorily imposed by the Statutes applicable to the sale and supply of these goods. To the extent allowed by such Statutes the liability of Adama New Zealand Limited is limited to the replacement of the goods or (at the option of Adama New Zealand Limited) the refund of the price paid and is conditional upon a claim being made in writing and where possible sufficient part of the goods to enable proper examination being returned to Adama New Zealand Limited within thirty days of delivery.

ADAMA®

Registered to:
Adama New Zealand Limited
Level 1, 19 Elms Street,
Wakatu Estate
Stoke 7040 New Zealand
Phone 03 543 8275
adama.com

Registered pursuant to the ACVM Act 1997, No. P8900
See www.foodsafety.govt.nz for registration conditions

Approved pursuant to the HSNO Act 1996, Approval No. HSR100932
See www.epa.govt.nz for approval conditions

®Adama and Warlock are registered trademarks of an Adama Agricultural Solutions Ltd. Company



Batch Number:

Bar code to be inserted

Date of Manufacture:

EMERGENCY RESPONSE
(All hours)
Ring from anywhere in New Zealand
0800 734 607

In a Transport
Emergency
Phone 111
Police or Fire