

DANGER
KEEP OUT OF REACH OF CHILDREN



ADAMA

WARLOCK® INSECTICIDE

GROUP 6 INSECTICIDE

**For the control of leafrollers on avocados, grapes, kiwifruit
and pipfruit**

READ THE ATTACHED BOOKLET COMPLETELY BEFORE MIXING OR APPLYING

Active Ingredient:

Contains 19.2 g/L EMAMECTIN BENZOATE in the form of an emulsifiable
concentrate

ADAMA New Zealand Limited
Level 1, 93 Bolt Road
Tahunanui, Nelson 7011
PO Box 1799, Nelson 7040
New Zealand
Telephone 03 543 8275
www.adama.com

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

READ THIS BOOKLET THOROUGHLY BEFORE MIXING OR USING.**HAZARD CLASSIFICATIONS: 3.1D, 6.1E, 6.3B, 6.4A, 6.8A, 6.9B, 9.1A, 9.C, 9.4A****PCBU RESPONSIBILITIES**

A PCBU with management or control of work using this substance must ensure that every worker who uses, handles, manufactures, or stores this hazardous substance (including hazardous waste) is, before the worker is allowed to carry out or supervise work involving those substances, provided with adequate information, training and instruction. This includes the use of personal protective equipment to be used to minimise risks to the health and safety of workers when carrying out work using this substance.

QUALIFICATIONS REQUIRED FOR APPLICATION OF CLASS 9 SUBSTANCES

Anyone who mixes, loads, or applies this product, either by air or ground based methods, is required to be suitably qualified, or must receive guidance and, if required, assistance from a suitably qualified person. *Refer to Schedule 10 of the Hazardous Substances (Hazardous Property Controls) notice 2017 for a list of suitable qualifications.*

RECORD KEEPING

Where 3 kg or more of the substance is applied within 24 hours, in a place where the substance is likely to enter air or water and leave the application area, a PCBU with management or control of the substance must ensure that a written record is kept of each application of the substance. *Refer to Part 4 Clause 48 of the Hazardous Substances (Hazardous Property Controls) notice 2017 for details of information that must be recorded.*

DANGER

Combustible liquid.

May be harmful if inhaled.

May be fatal if swallowed and enters airways.

Causes mild skin irritation.

Causes serious eye irritation.

May damage fertility or the unborn child.

May cause damage to organs through prolonged or repeated exposure.

May cause drowsiness or dizziness.

Very toxic to aquatic life.

Harmful to terrestrial vertebrates.

Very toxic to terrestrial invertebrates.

HANDLING PRECAUTIONS

Keep out of reach of children.

Do not eat, drink or smoke while using.

Keep away from flames and hot surfaces.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Use personal protective equipment as in the personal protection section of this label.

Do not breathe spray mist or vapours.

Wash exposed skin thoroughly after handling.

Use only outdoors or in a well-ventilated area.

EQUIPMENT

A PCBU with management or control of work using this substance must ensure that equipment used to handle this substance retains the substance, without leakage, at all of the temperatures and pressures at which the equipment is to be used; and dispenses or applies the substance, without leakage, at a rate and in a manner that the equipment is designed for. The PCBU must ensure that the equipment is accompanied by documentation that is readily available and readily understandable about the use and maintenance of the equipment.

STORAGE

Store locked up in the original, tightly closed container in a cool, dry, well-ventilated place, out of direct sunlight and away from stockfeed, seeds, fertilisers or foodstuffs. Avoid temperatures below 0°C or above 35°C.

Store in accordance with NZS 8409 Management of Agrichemicals. Secondary containment and emergency response plans are required where 100 L or more of this product are stored. Refer to the product SDS for further information.

In case of fire use carbon dioxide, dry chemical, foam, or water fog for extinction.

TRANSPORT

Do not carry packs greater than 10 L on passenger service vehicles.

PERSONAL PROTECTION

When mixing, loading or applying wear appropriate clothing including impervious elbow-length gloves (nitrile, layered polyethylene/ethane-vinyl alcohol or butyl), hat, boots, overalls and suitable respiratory and eye protection. Do not eat, drink or smoke while using. 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 as in the personal protection section of this label to clean up spills. Absorb spills with an inert 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.

DISPOSAL

Container Disposal - Triple rinse empty container and add rinsate to spray tank. Submit clean empty container to an Agrecovery® depot for recycling. Alternatively, puncture and bury in a suitable landfill. Avoid contamination of any water supply with product or empty container.

Product Disposal - Dispose of this product only by using according to the label, or through the Agrecovery® Chemical Recovery service or other approved facility.

FIRST AID

If medical advice is needed, have product container or label at hand.

For advice, or if you feel unwell or are exposed or concerned, contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor immediately.

IF SWALLOWED: Do NOT induce vomiting. Immediately call a POISON CENTRE or doctor.

IF ON SKIN: If skin irritation occurs, get medical attention.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention.

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor if you feel unwell.

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

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Warlock is a registered trademark of an ADAMA Group Company.



EMERGENCY RESPONSE

(All hours)

Ring from anywhere in New Zealand

0800 734 607

In a Transport

Emergency

Phone 111

Police or Fire

Batch Number:

Date of Manufacture:

Bar code to be inserted

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SAFETY DATA SHEET

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

PRODUCT INFORMATION

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

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.

Integrated Pest Management

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

Crop monitoring

For effective leafroller control, regularly monitor crops during the season.

DIRECTIONS FOR USE

EPA CONTROLS

- Take all reasonable steps to ensure that the substance does not cause any significant adverse effects to the environment beyond the application area.
- Spray drift to estuarine environments must be strictly avoided - DO NOT apply when weather conditions favour drift from the target area.
- Do not apply onto or into water.
- Application must be made by ground-based application methods only.
- The maximum application rate for WARLOCK INSECTICIDE is 310 mL/ha per application.
- RE-ENTRY INTERVAL (REI)
No person may enter the treated area for 24 hours after spraying is completed unless wearing appropriate personal protective equipment (PPE) as if applying the substance. A person must not supply this substance to any other person unless the label shows the requirements for the REI. A person who is in charge of this substance must ensure that the substance label shows the REI information

It is an offence to use this product on animals.

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

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

CROP	PEST	RATE	CRITICAL COMMENTS
Apples, pears	Leafrollers	5.2 mL in 100 L 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 L 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 L 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.
Kiwifruit		5.2 mL in 100 L 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.

It is an offence for users of this product to cause residues exceeding the relevant MRL in the Food Notice: Maximum Residues Levels for Agricultural Compounds.

WITHHOLDING PERIODS

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

For export crops contact your exporter or Industry crop advisor.

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.

RAINFALL

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

RESISTANCE MANAGEMENT

WARLOCK INSECTICIDE contains the GROUP 6 avermectin insecticide, emamectin benzoate. 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 and integrated pest management programmes where available. Refer to <https://resistance.nzpps.org/index.php> for current resistance management strategies for the pests listed.

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