

# **POISON** KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING

# **AAKOMECTINE MITICIDE/INSECTICIDE**

## ACTIVE CONSTITUENT: 18 g/L ABAMECTIN SOLVENTS: 265 g/L N-METHYL-2-PYRROLIDONE 58 g/L LIQUID HYDROCARBON



For the control of certain mites and insect pests on apples, capsicums, citrus, hops, ornamentals, pears, tomatoes and strawberries as specified in the Directions for Use table.

# IMPORTANT: READ THE ATTACHED LEAFLET BEFORE OPENING OR USING

Contents: 500 mL [1L, 5L, 20L]

AAKO AUSTRALIA PTY LTD

ACN 122 279 109 Suite 1, Level 4, Building B, 207 Pacific Highway St Leonards NSW 2065 Australia Tel: (02) 9431 7800 Fax: (02) 9431 7700

#### STORAGE AND DISPOSAL (500 mL, 1 L)

Store in the closed, original container in a cool, well ventilated area. DO NOT store for prolonged periods in direct sunlight. DO NOT use this container for any other purpose. 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.

### STORAGE AND DISPOSAL

#### (5 L, 20 L)

Store in the closed, original container in a well-ventilated area as cool as possible, out of direct sunlight. DO NOT use this container for any other purpose. This container can be recycled if it is clean, dry, free of visible residues and has the drumMUSTER logo visible. Triple or pressure rinse container for disposal. Add rinsings to spray tank. Dispose of the rinsate by adding it to the spray tank. DO NOT dispose of undiluted chemicals on site. Wash outside of the container and the cap. Store cleaned container in a sheltered place with cap removed. It will then be acceptable for recycling at any drumMUSTER collection or similar container management program site. The cap should not be replaced but may be taken separately. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the container 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. **For refillable containers**, empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

#### SAFETY DIRECTIONS

Poisonous if absorbed by skin contact or swallowed. Will damage eyes. Will irritate the skin. Avoid contact with eyes and skin. DO NOT inhale spray mist. When opening the container, preparing spray and using prepared spray, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and goggles. For space applications wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and goggles. For space applications wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow length PVC gloves, goggles, half facepiece respirator with dust cartridge or canister. If product in eyes, wash it out immediately with water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, goggles, respirator and if rubber wash with detergent and warm water and contaminated clothing.

#### **FIRST AID**

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131126. If swallowed, DO NOT induce vomiting. Give a glass of water. **If skin contact occurs**, remove contaminated clothing and wash skin thoroughly. **If in eyes hold eyes open**, flood with water for at least 15 minutes and see a doctor.

#### MSDS

Additional information is listed in the material safety data sheet (MSDS). A material safety data sheet for AKOSTAR MITICIDE/INSECTICIDE is available from Aako Australia Pty Ltd on request. Call (02) 9431 7800.

**CONDITIONS OF SALE:** The use of Akostar Miticide/Insecticide being beyond the control of the manufacturer, no warranty expressed or implied is given by Aako Australia Pty Ltd., regarding its suitability, fitness or efficiency for any purpose for which it is used by the buyer, whether in accordance with the directions or not and Aako Australia Pty Ltd. accepts no responsibility for any consequence whatsoever resulting from the use of this product.

IN A TRANSPORT EMERGENCY DIAL 000 POLICE OR FIRE BRIGADE

FOR SPECIALIST ADVICE IN AN EMERGENCY ONLY PHONE 1800 024 973 TOLL FREE – ALL HOURS – AUSTRALIA WIDE UN No. 2902 PESTICIDES, LIQUID, TOXIC, N.O.S.\* (CONTAINS ABAMECTIN) PACKING GROUP III HAZCHEM CODE 2XE

Batch No:

Date of Manufacture:

APVMA Approval No: 62032/500ML/0607 62032/1L/0607 62032/5L/0607 62032/20L/0607

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## IMPORTANT: THIS LEAFLET IS PART OF THE LABEL ATTACHED TO THE CONTAINER. READ THOROUGHLY BEFORE OPENING OR USING THIS PRODUCT.

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# **DIRECTIONS FOR USE**

### **RESTRAINTS:**

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

Situation	Pest	Rate	WHP (days)	Critical comments
Apples, Pears	Two Spotted Mite ( <i>Tetranychus</i> <i>urticae</i> ), European Red Mite ( <i>Panonychus ulmi</i> )	750 mL/ha plus 5 L/ha summer oil (See General Instructions for mixing rates.)	14	For best results, apply the product using dilute applications (spraying to point of run-off). If applying with concentrate applications efficacy may be compromised. DO NOT apply at more than two times concentrate (ie. half the dilute water volume). Apply the same total amount of AAKOMECTINE to the target crop whether applying AAKOMECTINE by dilute or concentrate spraying methods. Use a high quality summer spraying oil only and follow label instructions. In apples, apply AAKOMECTINE from 2 to 6 weeks after petal fall if monitoring shows high numbers of over-wintering European red mite eggs are present, or if mites are a problem early in the season. In pears, timing is not as critical and the application should be made soon after mite numbers have reached the threshold for your area. Generally AAKOMECTINE twill control moderate to high mite populations, but in the absence of predatory mites (see Integrated Pest Control below), retreatment with another miticide may be necessary. If retreatment is required, use an approved miticide from a different chemical group. Refer to notes on Resistance and Crop Safety under General Instructions section of this label. Integrated Pest Control: The effects of AAKOMECTINE, predatory mite populations may not increase for a number of weeks, due to a lack of suitable pest mite prey. Predatory mite numbers will increase with any increase in pest mite numbers allowing the continuation of biological mite control. DO NOT use in IPM programmes unless the pest mite threshold has been reached and predators are unlikely to achieve effective control.
Capsicums	Two Spotted Mite (Tetranychus urticae)	300 mL/ha	3	Thorough coverage and penetration into the plant canopy is essential. Preferably apply before the build-up of mite numbers. Re-apply as pest numbers indicate. Alternate with other chemical groups. Allow at least 28 days between applications with AAKOMECTINE and

				DO NOT use more than 2 AAKOMECTINE sprays per crop. Refer to notes on resistance under General Instructions section of this label.
Citrus	Brown Citrus Rust Mite ( <i>Tegolophus</i> <i>australis</i> ), Citrus Rust Mite ( <i>Phyllocoptera</i> <i>oleivora</i> ), Broad Mite ( <i>Polyhagotar</i> <i>sonemus latus</i> )	Dilute Spraying: 15-25 mL /100 L plus 250 mL/100 L summer oil. Concentrate Spraying: Refer to Application Instructions.	7	Apply by dilute spraying equipment in 3000L to 6000L water/ha. Apply the same total amount of product to the target crop whether applying this product by dilute or concentrate spraying methods. Use the higher rate under conditions of high pest pressure. Make no more than one application per season.
Hops	Two Spotted Mite (Tetranychus urticae)	1 L/ha	28	Apply as pest pressure indicates as a dilute spray in 1000 to 2000 L water/ha depending on crop size. Make no more than one application per season.
Strawberries	Two Spotted Mite (Tetranychus urticae)	100 mL/100 L If spray volume is less than 600 L/ha, use a minimum of 600 mL AAKOMECTINE/ ha. Do not exceed 1200 mL AAKOMECTINE/ ha/application	3	Spray to wet foliage to near the point of run-off. Thorough coverage and penetration into plants is essential. Preferably apply on first appearance of mites. When applied early, one application may be sufficient to give effective control however, if mite numbers exceed 3-5 mites per leaflet, apply two applications spaced 7-10 days apart. Re- apply as pest numbers indicate to a maximum of 2 sprays of AAKOMECTINE per season. If retreatment is required after 2 consecutive sprays with AAKOMECTINE, use an approved miticide from a different chemical group. Integrated Pest Control: see comments in the apple and pear section. Refer to notes on Resistance under General Instruction section of this label.
Tomatoes – Field grown (not trellised)	Two Spotted Mite (Tetranychus urticae)	300-450 mL/ha	3	Apply in sufficient volume to obtain even coverage and penetration of plants. Use droppers to direct spray onto plants away from the inter-row. Preferably apply before the build-up of mite numbers. If mite numbers exceed 5 mites per compound leaf, use the higher rate. Re- apply as pest numbers indicate. Allow at least 28 days between applications with AAKOMECTINE and DO NOT use more than 2 AAKOMECTINE sprays per crop. Refer to notes on Resistance under General Instructions section of this label.
	Tomato Russet Mite (Aculops lycopersici)			Apply as for Two Spotted Mite. The lower rate will control Tomato Russet Mite not apparent at spraying. Use the higher rate when Tomato Russet Mite is present at spraying or is the main pest.

	Tobacco Leafminer (Potato moth) (Phthorimaea operculella)	600 mL/ha		Apply in sufficient volume to obtain even coverage and penetration of plants. Use droppers to direct spray onto plants away from the inter-row. Apply on the first sign of pests. Re-apply as pest numbers indicate or every 7-10 days with a maximum of 5 applications to the crop. If mites are also a problem DO NOT use more than 2 AAKOMECTINE sprays per crop. Refer to notes on Resistance under General Instructions section of this label. NB. Other IPM strategies to reduce leafminer populations should be employed.
Tomatoes – Trellised or staked Tomatoes	Two Spotted Mite (Tetranychus urticae)	High volume spraying: 300 mL- 450 mL AAKOMECTINE /ha using concentrations of 60-90 mL/ 100	3	Wet foliage to near the point of run-off. Thorough coverage and penetration into bushes is essential. Preferably apply before the build-up of mite numbers. If mite numbers exceed 5-6 mites per compound leaf, use the higher rate. Re- apply as pest numbers indicate. Allow at least 28 days between applications with AAKOMECTINE and do not use more than 2 AAKOMECTINE sprays per crop. Refer to notes on resistance under General Instructions section of this label.
	Tomato Russet Mite (Aculops lycopersici)			Apply as for Two Spotted Mite. The lower rate will control Tomato Russet Mite not apparent at spraying. Use the higher rate when Tomato Russet Mite is present at spraying or is the main pest.
	Tobacco Leafminer (Potato moth) <i>(Phthorimaea operculella)</i>	High volume spraying: 600 mL AAKOMECTINE /ha using concentrations of 120 mL/100L		Wet foliage to near the point of run off. Thorough coverage and penetration into bushes is essential. Apply on the first sign of pests. Re-apply as pest numbers indicate or every 7-10 days with a maximum of 5 applications to the crop. If mites are also a problem DO NOT use more than 2 AAKOMECTINE sprays per crop. Refer to notes on Resistance under General Instructions section of this label. NB. Other IPM strategies to reduce leafminer populations should be employed.
Ornamentals including Roses, Chrysanthemums, Carnations and indoor foliage plants	Two Spotted Mite (Tetranychus urticae)	50 mL/100 L to a maximum of 1.5 L AAKOMECTINE/ ha per application	Not required	Spray to wet foliage to near the point of runoff using at least 2,000 litres per hectare (100 litres per 500 square metres). Thorough coverage and penetration into plants is essential. Preferably apply on first appearance of mites. If applied when pest numbers are low to moderate, one application will be sufficient to give effective control, however if mites are numerous, apply a second application 7-10 days later. DO NOT use overhead irrigation within 24 hours after application. DO NOT use on Ferns and Shasta. For ornamentals not listed on the label, small test applications to assess for unexpected phytotoxicity should be made before spraying the whole crop. DO NOT use more than 2 times per season. Refer to notes on

		Resistance under General Instructions
		section of this label.

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

WITHHOLDING PERIOD	S:			
APPLES AND PEARS:	DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION.			
	DO NOT FEED TREATED PRODUCE TO LIVESTOCK FOR 14 DAYS AFTER			
	APPLICATION.			
CITRUS:	DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION.			
HOPS:	DO NOT HARVEST, GRAZE OR CUT FOR STOCKFOOD FOR 4 WEEKS			
	AFTER APPLICATION.			
CAPSICUMS, STRAWBERRIE	S			
AND TOMATOES:	DO NOT HARVEST FOR 3 DAYS AFTER APPLICATION.			
	DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 3 DAYS AFTER			
	APPLICATION.			
ORNAMENTALS:	NOT REQUIRED WHEN USED AS DIRECTED.			
	DO NOT GRAZE OR CUT FOR STOCK FOOD.			

#### **GENERAL INSTRUCTIONS**

AAKOMECTINE is an insecticide and acaricide with contact and stomach action. AAKOMECTINE has limited plant systemic activity but exhibits translaminar movement. Good spray coverage is essential. AAKOMECTINE is translocated into leaves and remains for several weeks offering limited residual control of sucking mites.

#### MIXING

Measure the required amount of AAKOMECTINE, add to the partly filled spray tank and then add the remainder of the water. Wetting agent is not required.

#### Mixing Instructions

**For Apple and Pear Applications:** AAKOMECTINE is not systemic making good coverage essential. To achieve 750 mL AAKOMECTINE + 5 L summer oil/ha apply spray at the following mixing rates:

	AAKOMECT	NE	Summer Oil
		(Rate/100 L required)	
1000 L/ha (minimum)	75 mL	500 mL	
1500 L/ha	50 mL	335 mL	
2000 L/ha	37.5 mL	250 mL	
2500 L/ha	30 mL	200 mL	

**Crop Safety:** AAKOMECTINE plus summer oil has very occasionally caused slight fruit russetting on some pear varieties particularly ANJOU and other sensitive varieties when used alone or when other products are applied sequentially. A very small amount of temporary apple fruit blemishing has been associated with low water volume applications. The Directions for Use and Precautions on summer oil labels should be followed carefully. Certain conditions may play a part in the occurrence of this damage. DO NOT make applications (1) when unusually hot conditions are present or expected within 24 hours after application, (2) under poor or slow drying conditions or (3) with equipment that may leave large droplets on fruit after application.

AAKOMECTINE plus summer oil has caused more severe fruit russetting on sensitive apple varieties. DO NOT apply AAKOMECTINE to apples or pears before or after applications of Delan\* or Captan\*.

**For Citrus Applications:** To be effective AAKOMECTINE requires thorough spray coverage. Ensure that equipment is properly calibrated to give an even distribution at the correct volume. The same quantity of AAKOMECTINE per hectare should be used when spraying either the dilute or concentrate method.

#### **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 run-off. 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 AAKOMECTINE 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.

#### **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 1500 L/ha

2. Your chosen concentrate spray volume: for example 500 L/ha

3. The concentrate factor in this example is 3 X (ie. 1500 L  $\div$  500 L = 3)

4. If the dilute label rate is 125 mL/100 L, then the concentrate rate becomes 3 x 125, that is 375 mL/100 L of concentrate spray.

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

#### COMPATIBILITY

AAKOMECTINE is compatible with Caltex Summer Spray Oil, BP Summer Spray Oil, Codacide and with most commonly used insecticides and fungicides. However, as formulations of other manufacturer's products are beyond the control of Aako Australia Pty Ltd, all mixtures should be tested prior to mixing commercial quantities.

#### INSECTICIDE RESISTANCE WARNING

GROUP 6A	INSECTICIDE
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For insecticide resistance management AAKOMECTINE is a Group 6A insecticide. Some naturally occurring insect biotypes resistant to AAKOMECTINE and other Group 6A insecticides may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if AAKOMECTINE or other Group 6A insecticides are used repeatedly. The effectiveness of AAKOMECTINE on resistant individuals could be significantly reduced. Since the occurrence of resistant insects is difficult to detect prior to use Aako Australia Pty Ltd. accepts no liability for any losses that may result from the failure of AAKOMECTINE to control resistant insects. AAKOMECTINE may be subject to specific resistance management strategies. For further information contact your local supplier, Aako Australia Pty Ltd representative or local agricultural department agronomist.

#### RESISTANCE

Experience has shown that repeated use of one particular miticide or miticides from the same chemical group can lead to the early development of mite resistance to that miticide or chemical group. Therefore AAKOMECTINE should not be applied more than the following number of times per season/crop:

Apples/Pears, Citrus, Hops: One spray per season

Tomatoes:Two sprays per crop if mites are present, five sprays if mites are not presentCapsicums, Strawberries:Two sprays per season

In addition, AAKOMECTINE should not be applied in two consecutive seasons without an unrelated chemical being used in between. Alternate AAKOMECTINE with approved miticides from other chemical groups. Consult your chemical supplier or technical consultant for advice on chemical groups.

#### **CROP MONITORING**

Effective mite control depends upon regular monitoring of crops. Check crops regularly (every 3-5 days) during the season.

#### PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

DO NOT apply under weather conditions or from spraying equipment that may cause spray to drift from the target area. Dangerous to fish and other water-borne organisms. DO NOT contaminate streams, rivers or waterways with the chemical or used containers. Dangerous to bees. DO NOT spray any plants in flower while bees are foraging.

Studies indicate that when abamectin comes into contact with soil it readily and tightly binds to the soil and becomes inactive over time.

#### STORAGE AND DISPOSAL (500 mL, 1 L)

Store in the closed, original container in a cool, well ventilated area. DO NOT store for prolonged periods in direct sunlight. DO NOT use this container for any other purpose. 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.

#### STORAGE AND DISPOSAL

#### (5 L, 20 L)

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#### PRECAUTION

#### **RE-ENTRY PERIOD**

Under field conditions the spray should be allowed to dry on the foliage before re-entry into treated areas. DO NOT allow entry into treated areas in glasshouses for 24 hours after treatment. When prior entry is necessary, wear cotton overalls buttoned to the neck and wrist and elbow-length PVC gloves.

#### SAFETY DIRECTIONS

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#### FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131126. If swallowed, DO NOT induce vomiting. Give a glass of water. **If skin contact occurs**, remove contaminated clothing and wash skin thoroughly. **If in eyes hold eyes open**, flood with water for at least 15 minutes and see a doctor.

#### MSDS

Additional information is listed in the material safety data sheet (MSDS). A material safety data sheet for AAKOMECTINE is available from Aako Australia Pty Ltd on request. Call Customer Service on (02) 9431 7800.

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