

POISON

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

ALPHASIP[®] DUO

100 INSECTICIDE

ACTIVE CONSTITUENT: 100 g/L ALPHA-CYPERMETHRIN
SOLVENT: 755 g/L LIQUID HYDROCARBONS

GROUP 3A INSECTICIDE



For the control of insect pests including heliothis (*Helicoverpa* spp.) on various crops and red legged earth mite and blue oat mite on certain field crops and pastures and certain pests on fruit and vegetable crops as specified in the Directions for Use Table.

IMPORTANT: READ THE ATTACHED LEAFLET BEFORE USING THIS PRODUCT

**CONTENTS: 20L
APVMA APPROVAL NO:
63849/20L/0409**

File Name	63849_46704_20L_primary_MPL_V02.pdf
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Latest Preparation Date	06/05/09



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PROTECTION OF LIVESTOCK

Dangerous to bees. DO NOT spray on any plants in flower while bees are foraging. This product is known to have a deterrent effect on foraging bees for a short period of time after spraying.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Dangerous to fish and aquatic invertebrates such as yabbies. DO NOT contaminate streams, rivers or waterways with the chemical or the used container. Drift and run-off from treated areas may be hazardous to fish or crustaceans in adjacent sites.

STORAGE AND DISPOSAL (20L, 100L and 200L containers)

Store in the closed, original container, in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. Triple or preferably pressure rinse containers for disposal. Dispose of rinsate by adding it to the spray tank. DO NOT dispose of undiluted chemicals on site. Wash the outside of the container and the cap. Store cleaned container in a sheltered place with cap removed. 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 500mm in 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 (1000L container)

Store in the closed, original container, in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage. Do not dispose of undiluted chemicals on-site. This container remains the property of Sipcam Pacific Australia Pty Ltd.

SAFETY DIRECTIONS

Harmful if swallowed. Will irritate the eyes and skin. Facial skin contact may cause temporary facial numbness. Avoid contact with eyes and skin. Avoid inhaling vapour or spray mist. When preparing spray, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and a face shield or goggles. 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, face shield or goggles and contaminated clothing.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia: 13 11 26. If swallowed, do NOT induce vomiting. Give a glass of water.

MATERIAL SAFETY DATA SHEET

For further information, refer to the Material Safety Data Sheet (MSDS) which is available from the supplier or from our web site, www.sipcam.com.au

NOTICE TO BUYER

Sipcam Pacific Australia Pty Ltd (Sipcam) shall not be liable for any loss, injury, damage or death whether consequential or otherwise whatsoever or howsoever arising whether through negligence, use under abnormal conditions or otherwise in connection with the sale, supply, use or application of this product. The supply of this product is on the express condition that the purchaser does not rely on Sipcam's skill or judgement in purchasing or using the product and every person dealing with this product does so at their own risk.

Date of Manufacture:

Batch Number:



UN NO. 3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (CONTAINS ALPHA-CYPERMETHRIN) MARINE POLLUTANT
FOR SPECIALIST ADVICE IN AN EMERGENCY DIAL 1800 033 111 24 hours Australia wide	
PG III	HAZCHEM 2W

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Sipcam Pacific Australia Pty Ltd Level 1, 191 Malop Street Geelong VICTORIA 3220



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APVMA Approval No: 63849/0409

SIPCAM PACIFIC AUSTRALIA PTY LTD. Level 1, 191 Malop Street Geelong VICTORIA 3220

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DIRECTIONS FOR USE

RESTRAINTS: Do NOT apply if rain is expected within 6 hours of application.

Asparagus – Do NOT apply more than 6 times per season.

NOTE: This product is ineffective against synthetic pyrethroid resistant *Helicoverpa armigera* larvae longer than 5mm.

All *Helicoverpa armigera* in NSW and Qld should be treated as being resistant to synthetic pyrethroids.

Refer to RESISTANCE MANAGEMENT under GENERAL DIRECTIONS.

This product is ineffective against synthetic pyrethroid-resistant *Plutella xylostella*.

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
Asparagus (not for use on White Asparagus)	Garden weevil (<i>Phlyctinus callosus</i>)	WA only	100mL/100L	1 day	Apply in spring after weevil emergence, at up to 500L spray solution per hectare. Daytime spraying is effective but superior control may be achieved if spray is applied at night. Repeat application as required, depending on pest pressure. Application to fern after spear harvest may reduce carry-over of Garden weevil for the following season. Caution: Not for use on White Asparagus, there have been reports of some phytotoxicity when using Alpha-Cypermethrin.
Banksias	Banksia moth (<i>Danima banksia</i>)	WA only	20 mL/100L	-	Apply on a regular program at 2-week intervals at early flower development. Commence spraying when blooms are immature and continue until flowers are fully developed.
Broccoli, Brussels Sprouts, Cabbages, Cauliflowers, Chinese Cabbage, Kale, Kohl Rabi, Turnips.	Cabbage moth (<i>Plutella xylostella</i>), Cabbage white butterfly (<i>Pieris rapae</i>), Native budworm (<i>Helicoverpa punctigera</i>), Cotton bollworm (<i>Helicoverpa armigera</i>)	All states	LOW VOLUME 400 mL/ha HIGH VOLUME 50 mL/100L	1 day (harvest)	Apply according to pest incidence. When reinfestation is continuous, treatment every 7-10 days may be required. Add a non-ionic surfactant at its label rates. LOW VOLUME: GROUND RIG APPLICATION: Apply in 100 to 600L of water per hectare as a fine spray (ie. A droplet size of 100 to 200 microns). AERIAL APPLICATION: Apply in 20 to 60L water per hectare as a spray of 100 to 150 microns droplet size. HIGH VOLUME: Gradually increase the spray volume as the plants grow, from 600L/ha just after transplanting to 1000L/ha at maturity. Apply as a medium spray (ie. droplet size of 200 to 400 microns VMD). <i>Helicoverpa armigera</i> in NSW and Qld – follow the application directions for the pest above. Apply as required according to pest incidence. Thorough and frequent crop checks are essential. Preferably apply to eggs. Apply to larvae only if they are less than 5mm long.
	Cluster caterpillar (<i>Spodoptera litura</i>)	Qld, NSW, ACT, Vic, WA, NT only			

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
Canola	Native budworm (<i>Helicoverpa punctigera</i>)	NSW, Vic, Tas & WA only	200 or 300 mL/ha	21 days (cutting for harvest or stock feed or grazing)	Do NOT use more than a total of 400 mL/ha per season to any one crop. Inspect the crop regularly and immediately after flowering. Apply when damaging pest numbers first appear on the crop and repeat if necessary. For aerial application, use a total volume of 30-35 L/ha and apply in cooler part of the day. Use the higher rate if larvae longer than 10mm are present.
	Tobacco looper (<i>Chrysodexis argentifera</i>)	NSW, Vic, Tas, SA, WA only			
	Vegetable weevil (<i>Listroderes difficilis</i>)	NSW, ACT, Vic, Tas, SA, WA only	400 mL/ha		Crops should be inspected as they emerge. Border sprays are required to control invading adults. AlphaSip Duo 100 Insecticide should be applied when cotyledons and leaves are being eaten. Repeat as necessary.
	Cabbage white butterfly (<i>Pieris rapae</i>), cabbage moth (<i>Plutella xylostella</i>)				Apply according to pest incidence.
	Red legged earth mite (<i>Halotydeus destructor</i>)	All States except NT and Qld	100mL/ha		Pre-emergence: Apply by ground rig only. Treat infested paddocks after sowing but prior to crop emergence when soil is moist. Monitor red legged earth mite numbers and re-treat if necessary.
	Red legged earth mite (<i>Halotydeus destructor</i>), blue oat mite (<i>Penthaleus major</i>)		50mL/ha		Post emergence: Apply when mite numbers reach damaging levels. Do not apply as a pre-emergence treatment. Do NOT apply as a ULV application.
Chickpeas	Native budworm (<i>Helicoverpa punctigera</i>)	WA only	160mL/ha	21 days (harvest) 35 days (grazing)	Apply to open, less dense crops when numbers of newly hatched larvae first appear on the crop and repeat as necessary.
		NSW, ACT, Vic, SA, WA only	200 or 300 mL/ha		Apply when pest numbers reach damaging levels and repeat if necessary. Use the higher rate if larvae longer than 10mm are present. Best results will be obtained by spraying at egg hatch.
	Red legged earth mite (<i>Halotydeus destructor</i>)	NSW, Vic, Tas, SA, WA only	100 mL/ha		Pre-emergence: Apply by ground rig only. Treat infested paddocks after sowing but prior to crop emergence when soil is moist. Monitor red legged earth mite population and re-treat if necessary. Do NOT apply as a ULV application.
	Red legged earth mite (<i>Halotydeus destructor</i>), Blue oat mite (<i>Penthaleus major</i>)		50mL/ha		Apply when mite number reach damaging levels. Do not apply as a pre-emergence treatment. Do NOT use as a ULV application.
	Cutworm (<i>Agrostis</i> spp.)		75 mL/ha		Check emerging or establishing crops in late afternoon and evening for caterpillars crawling on the soil surface and feeding on the seedlings. Spray in late afternoon and evening.

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
Cotton	Native budworm (<i>Helicoverpa punctigera</i>)	Qld, NSW, NT & WA only		14 days (harvest)	Apply as indicated by field checks using rates appropriate for the infestation level determined. Application should be timed to coincide with egg hatching and before larvae are in protected feeding sites.
			300mL/ha	Apply when there are up to 75 eggs and/or up to 5 larvae less than 5mm long per 100 terminals.	
			400mL/ha	Apply when there are up to 150 eggs and/or up to 10 larvae less than 5mm long per 100 terminals and/or when larvae between 5 and 10mm are present.	
			500mL/ha	Apply when there are more than 150 eggs and/or more than 10 larvae less than 5mm long per 100 terminals and/or when larvae longer than 10mm are present.	
	Cotton bollworm (<i>Helicoverpa armigera</i>)			Preferably apply to eggs. Apply to larvae only if they are less than 5mm long.	
			300mL/ha	Apply when there are up to 75 eggs and/or more than 5 larvae less than 5mm long per 100 terminals.	
			400mL/ha	Apply when there are up to 150 eggs and/or up to 10 larvae less than 5mm long per 100 terminals.	
			500mL/ha	Apply when there are more than 150 eggs and/or more than 10 larvae less than 5mm long per 100 terminals.	
				Apply when an average of 2 or more larvae are present per 100 bolls. It is essential to detect and treat infestations in the early stages before larvae are established or concealed in bolls deep in the canopy. Use the higher rate if larvae longer than 10mm are present. Best results are obtained by applying at egg hatch.	
Cereals (Winter)	Cutworm (<i>Agrotis</i> spp.)	NSW, ACT, WA only	75mL/ha	7 days (Harvest)	Check emerging and establishing crops in the late afternoon and evening for caterpillars crawling on the soil surface and feeding on the seedlings. Spray in the late afternoon or evening. In NSW, do NOT apply before May or after August.
		Qld only	75 or 150 mL/ha	14 days (Stubble grazing)	In Qld, use the higher rate when the infestation is severe, or when there are larvae longer than 10mm, or when longer residual activity is required.

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
Cereals (Winter) <i>cont.</i>	Webworm (<i>Hednota</i> spp.)	NSW, Vic, SA & WA only	75mL/ha	7 days (Harvest)	Pre planting: May be applied with knockdown herbicides prior to planting. Apply from the last week in May when the larvae have emerged. Do NOT apply to dense pasture. All pasture should be closely grazed prior to application to ensure adequate spray penetration. Apply in a minimum on 100L of water per hectare. Repeat as required. Post crop emergence: Inspect crop regularly from emergence and apply at first sign of pest activity. Repeat as required.
				14 days (Stubble grazing)	
	Common armyworm (<i>Mythmna convecta</i>), Southern armyworm (<i>Persectania ewingii</i>)	All states	240mL/ha	Apply before "head lopping" occurs and when there are 2 or more larvae per square metre. Spray in the cool of the day (usually late afternoon) when larvae are most active. Ensure the spray penetrates the crop. This rate is effective on larvae up to 20mm in length. Monitor crop closely and re-treat if necessary. Poor control may occur in crops that have lopped. See application section for water rates.	
				Pre emergence: Apply by ground rig only. Treat infested paddocks after sowing but prior to crop emergence when soil is moist. Monitor red legged earth mite numbers and re-treat if necessary.	
	Red legged earth mite (<i>Halotydeus destructor</i>)	NSW, ACT, Vic, Tas, SA, WA only	100mL/ha	Apply when mite numbers reach damaging levels. Spray seedling crops if silvering or whitening (bleaching) of the leaves is causing a reduction in crop growth. If possible, spray on a calm, mild morning when mites are actively feeding on crop leaves. Do NOT apply as a pre-emergence treatment.	
	Red legged earth mite (<i>Halotydeus destructor</i>), Blue oat mite (<i>Penthaleus major</i>)		50mL/ha	Post-emergence: To control aphids, sprays should be applied at 3 and 7 weeks after emergence to reduce aphid colonization and the spread of Barley Yellow Dwarf Virus. This will also reduce the effect of feeding aphid damage.	
Aphids (<i>Rhopalosiphum</i> spp.) (barley yellow dwarf virus vectors)	125mL/ha				
Eucalyptus plantations	Adults and larvae of Tasmanian eucalyptus leaf beetle (<i>Chrysophtharta bimaculata</i>)	Tas only	250mL/ha	-	Apply by fixed wing aircraft or by helicopter using hydraulic or Micronair equipment, to the crowns of eucalypt trees. Micronair application in 5 litres of water/ha has proved effective. Apply before insect damage causes severe defoliation. Treatment will control small and large larvae as well as adult beetles.

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
Faba beans	Native budworm (<i>Helicoverpa punctigera</i>)	WA only	160mL/ha	4 weeks (Harvest)	Apply to open, less dense crops when numbers of newly hatched larvae first appear on the crop and repeat as necessary.
		NSW, Vic, Tas, SA, WA only	200 or 300mL/ha	35 Days (Grazing)	Apply when pest numbers reach damaging levels and repeat if necessary. Use the higher rate if larvae longer than 10mm are present. Best results will be obtained by spraying at egg hatch.
	Red legged earth mite (<i>Halotydeus destructor</i>)	NSW, Vic, Tas, SA, WA only	100 mL/ha	50mL/ha	Pre-emergence: Apply by ground rig only. Treat infested paddocks after sowing but prior to crop emergence when soil is moist. Monitor red legged earth mite population and re-treat if necessary. Do NOT apply as a ULV application.
			50mL/ha		Post emergence: Apply to established crops when mite numbers reach damaging levels. Do NOT apply as a pre-emergence treatment. Do NOT apply as a ULV application.
			75 mL/ha		Check emerging or establishing crops in the late afternoon and evening for caterpillars crawling on the soil surface and feeding on the seedlings. Spray in late afternoon and evening.
Red legged earth mite (<i>Halotydeus destructor</i>), Blue oat mite (<i>Penthaleus major</i>)					
Cutworm (<i>Agrostis</i> spp.)					
Field Peas	Native budworm (<i>Helicoverpa punctigera</i>)	WA only	160 mL/ha	4 weeks (harvest)	Apply to open, less dense crops when numbers of newly hatched larvae first appear on the crop and repeat as necessary.
		NSW, Vic, Tas, SA, WA only	200 or 300 mL/ha		Apply when pest numbers reach damaging levels and repeat if necessary. Use higher rate if larvae longer than 10mm are present. Best results will be obtained by spraying at egg hatch.
	Pea weevil (<i>Bruchus pisorum</i>)	NSW, ACT, Vic, SA, WA only	160 or 200mL/ha	Apply during flowering prior to egg laying when adult weevil population reaches one or more per 25 sweeps of a sweep net. Use the higher rate for longer residual protection.	
	Cutworm (<i>Agrostis</i> spp.)	NSW, ACT, SA, WA only	75 mL/ha	Check emerging and establishing crops in the late afternoon and evening for caterpillars crawling on the soil surface and feeding on the seedlings. Spray in late afternoon and evening.	
	Red legged earth mite (<i>Halotydeus destructor</i>)	NSW, Vic, Tas, SA & WA only	100mL/ha	Pre-emergence: Apply by ground rig only. Treat infested paddocks after sowing but prior to crop emergence when soil is moist. Monitor red legged earth mite numbers and re-treat if necessary. Do NOT apply as a ULV application.	
			50mL/ha	Post emergence: Apply to established crops when mite numbers reach damaging levels. Do NOT apply as a pre-emergence treatment. Do not use as a ULV application.	
Red legged earth mite (<i>Halotydeus destructor</i>), Blue oat mite (<i>Penthaleus major</i>)					

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
Grapevines (non - bearing)	Pink cutworm (<i>Agrostis munda</i>), apple weevil (<i>Curculio beetle</i>) (<i>Otiorthynchus cricricollis</i>), garden weevil (<i>Phlyctinus callosus</i>)	NSW, SA, Vic, Tas, WA only	100 mL/ 100 L	-	Monitor young vines during spring and early summer and apply at the first signs of leaf damage. Spray the leaves, canes and soil around each vine to a diameter of 30cm. 70 to 80mL of dilute spray should be sufficient for each vine. If pest infestation persists, a second application may be required after three weeks.
Lettuce	<i>Helicoverpa</i> spp.	All States	LOW VOLUME: 400 mL/ha HIGH VOLUME: 50mL/100L	3 days (harvest)	Thoroughly and regularly check the crop. Apply at the first sign of pest activity. Preferably apply to eggs. Apply to larvae only if they are less than 5mm long. Repeat according to pest incidence.
Linola	Native budworm (<i>Helicoverpa punctigera</i>)	NSW, Vic, Tas, SA, WA only	160 or 200mL/ha	12 weeks (harvest)	DO NOT apply more than a total 400mL/ha per season to any one crop. Inspect crop regularly during and immediately after flowering. Apply when damaging pest numbers first appear on the crop. For aerial application, apply during the cooler part of the day in a total volume of 30-35L/ha. Use the higher rate if larvae longer than 10mm are present.
Linseed	Cutworm (<i>Agrostis</i> spp.)	NSW, ACT, SA, Tas, WA only	75 mL/ha	14 days (harvest)	Check emerging and establishing crops in the late afternoon and evening for caterpillars crawling on the soil surface and feeding on seedlings. Spray in the late afternoon and evening.
	Native budworm (<i>H. punctigera</i>)	NSW, Vic, Tas, SA, WA only	200 or 300mL/ha		Inspect the crop regularly during and immediately after flowering. Apply when damaging pest numbers first appear on the crop and repeat if necessary. Use the higher rate if larvae longer than 10mm are present. Best results will be obtained by spraying at egg hatch.
Lucerne (seed and forage crops)	Native budworm (<i>H. punctigera</i>)	NSW, Vic, Tas, SA, WA only	160mL/ha	14 days (Grazing or cutting for stock feed)	Do NOT apply more than one application per cut for animal feed. Apply when pest populations reach economically damaging levels. Apply to larvae less than 5mm in length.
	Green mirid (<i>Creontiades dilutis</i>)				

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
Lupins	Native budworm (<i>Helicoverpa punctigera</i>)	NSW ,ACT, Vic, SA only	200 or 300 mL/ha	4 weeks (harvest)	Apply when damaging pest numbers first appear on the crop and repeat if necessary. Use the higher rate if larvae longer than 10 mm are present. Best results will be obtained by spraying at egg hatch.
		WA only	120 or 200 mL/ha		Spraying should be timed to precede the first visible damage to the pods. Use the higher rate when the infestation is severe, or when residual activity is required.
	Cutworm (<i>Agrostis</i> spp.)	NSW, ACT, Vic, Tas, SA, WA only	75 mL/ha		Check emerging and establishing crops in the late afternoon and evening for caterpillars crawling on the soil surface and feeding on the seedlings. Spray in the late afternoon and evening.
	Common armyworm (<i>Mythimna convecta</i>), Southern armyworm (<i>Persectania ewingii</i>)	NSW, ACT, WA only	160 mL/ha		Spray in the cool of the day (late afternoon) when larvae are most active.
	Red legged earth mite (<i>Halotydeus destructor</i>)	NSW, Vic, Tas, SA, WA only	100 mL/ha		Pre-emergence: Apply by ground rig only. Treat infested paddocks after sowing but prior to crop emergence when soil is moist. Monitor red legged earth mite numbers and re-treat if necessary. Do NOT apply as a ULV application.
	Red legged earth mite (<i>Halotydeus destructor</i>), Blue oat mite (<i>Penthaleus major</i>)		50mL/ha		Post emergence: Apply to established crops when mite numbers reach damaging levels. Do NOT apply as a pre-emergence treatment. Do NOT apply as a ULV application.
Maize	Corn earworm (<i>Helicoverpa armigera</i>)	Qld, NSW ACT, Vic, NT, WA only	300 or 400mL/ha	7 days (harvest)	Thoroughly and regularly check the crop. Apply from early silking according to pest incidence. Use the higher rate if larvae longer than 10mm are present. In Qld, NSW and NT, preferably apply to eggs or apply to larvae only if they are less than 5mm long.
	Native budworm (<i>Helicoverpa punctigera</i>)	All States			Thoroughly and regularly check the crop. Apply when infestation reaches an economically damaging level and repeat if necessary. Best results will be obtained by applying at egg hatch. Use the higher rate if larvae longer than 10mm are present.

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
Mung Beans, Navy Beans	Native budworm (<i>Helicoverpa punctigera</i>)	Qld, NSW, ACT, NT, WA only	300 or 400mL/ha	7 days (harvest)	Crop checking should be aimed to detect larvae as they hatch. Small larvae are easier to kill than large larvae. Apply when the number of larvae feeding on flowers or pods reach 1 to 2 per metre of row. Repeat as required. Use the higher rate when larvae larger than 10mm are present or when canopy is dense. Best results will be obtained by spraying at egg hatch.
	Corn earworm (<i>Helicoverpa armigera</i>)				Thoroughly and regularly check the crop. Apply when the infestation reaches an economically damaging level and repeat as required. Preferably apply to eggs. In Qld and NSW, apply to larvae only if they are less than 5mm long. Use the higher rate when pest pressure is high.
Pastures (legume and grass based pastures)	Wingless grasshoppers (<i>Phaulacridium vittatum</i>)	NSW, Vic, Tas, WA only	160mL/ha	3 days (grazing) 14 days (cut for stockfeed)	Do NOT apply more than a total of 320mL/ha per season. Apply to infested areas and repeat as necessary. Spraying is most effective on newly emerged hoppers before they begin dispersing. Spray in the warmer parts of the day when hoppers are exposed. Later sprays should be applied before the start of egg laying. Good coverage is essential.
	Brown pasture looper (<i>Ciampa arietaria</i>)	NSW, Vic, Tas, SA, WA only	50mL/ha		Apply when pest infestation reaches a commercially damaging level.
	Blackheaded pasture cockchafer (<i>Aphodius tasmaniae</i>)		100mL/ha		Spraying is most effective when larvae are detected and treated early. Suspect paddocks should be dug after the first substantial rain in April/May and inspected to ensure grubs are present in sufficient numbers to warrant treatment. Spraying after June will give poorer results.
	Red legged earth mite (<i>Halotydeus destructor</i>)	NSW, ACT, Vic, Tas, SA, WA only	100mL/ha		Pre-emergence: Apply by ground rig only. Treat infested paddocks after sowing but prior to crop emergence when soil is moist. Monitor red legged earth mite numbers and re-treat if necessary. Do NOT apply as a ULV application.
Red legged earth mite (<i>Halotydeus destructor</i>), Blue oat mite (<i>Penthaleus major</i>)	50mL/ha		Post emergence: Apply when mite numbers reach damaging levels. Autumn/winter: Apply 4 to 7 weeks after the opening rains in late autumn/early winter when RLEM are present (2-3 weeks after egg hatch occurs). AlphaSip Duo 100 Insecticide is rainfast after spray deposits have dried on the leaf surface. AlphaSip Duo 100 Insecticide can be mixed with herbicides used for winter cleaning of sub clover pastures. Consult the compatibility section of this label for details. Spring: If RLEM/BOM numbers increase in the spring, spray again before diapuse egg production begins. AlphaSip Duo 100 can be mixed with herbicides used for spray topping pastures. Consult the compatibility section of this label for details. Do NOT use as a ULV application.		

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
Pome fruit: Apples, pears	Apple weevil (<i>Otiorhynchus cribricollis</i>) Garden weevil (<i>Phlyctinus callosus</i>)	NSW, Vic, SA, WA only	100 mL/100L water	14 days (harvest)	Spray approximately 1-2 litres of solution onto the crotch, trunk and the soil at the base of each tree at peak weevil emergence. This is usually late October – late November for garden weevil, and late November – mid December for apple weevil. Monitor weevil emergence using a single sided cardboard trunk band. Continue monitoring after spraying as a second spray may be needed 3-4 weeks later.
Rice (both aerial and drill sown)	Common armyworm (<i>Mythimna convecta</i>)	NSW only	200mL/ha	7 days	Do NOT apply more than a total of 400mL/ha per season to any one crop. Inspect crops regularly for the presence of grubs from flowering onwards. Apply when rice-damaging pest numbers first appear. Apply by aircraft in 20-30 litres of water per hectare to drained fields only. Spray in the cool of the day (early morning or late afternoon) when larvae are most active.
Soybeans	Native budworm (<i>Helicoverpa punctigera</i>)	Qld, NSW, ACT, NT, WA only	300 or 400mL/ha	7 days (harvest)	Thoroughly and regularly check the crop. Apply when the number of larvae feeding on flowers plus pods reach 1-2 per metre of row. Repeat as required. Use the higher rate if larvae longer than 10 mm are present. Best results are obtained by applying at egg hatch.
	Corn earworm (<i>Helicoverpa armigera</i>)				Thoroughly and regularly check the crop. Apply when the numbers are sufficient to cause economic damage. Preferably apply to eggs. In NSW and Qld, apply to larvae only if they are less than 5mm long. Repeat as required. Use the higher rate when pest pressure is high.
Stone fruit: Apricots, nectarines, peaches, plums	Apple weevil (<i>Otiorhynchus cribricollis</i>) Garden weevil (<i>Phlyctinus callosus</i>)	WA only	100 mL/100L water	14 days (harvest)	Spray approximately 1-2 litres of solution onto the crotch, trunk and soil at the base of each tree at peak weevil emergence. This is usually late October – late November for garden weevil, and late November – mid December for apple weevil. Monitor weevil emergence using a single sided cardboard trunk band. Continue monitoring after spraying as a second spray may be needed 3-4 weeks later.
Sorghum	Corn earworm (<i>Helicoverpa armigera</i>), Native budworm (<i>Helicoverpa punctigera</i>)	Qld, NSW, ACT, NT, WA only	300 or 400 L/ha	7 days (harvest)	Crop checking should commence when the head emerges from the boot and continue at daily intervals until the end of flowering for midge and at weekly intervals until maturity for <i>Helicoverpa armigera</i> . Do NOT apply to tight headed varieties. Apply when there are 2 or more actively feeding larvae per head, or when numbers are sufficient to cause economic damage. Use the higher rate if longer residual control is required. Preferably apply to eggs. Apply to larvae only if they are less than 5mm long. Repeat as required.

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
Sorghum <i>cont.</i>	Sorghum midge (<i>Contarinia sorghicola</i>)	Qld, NSW, ACT, NT, WA only	100 or 200mL/ha	7 days (harvest)	Apply when numbers reach 1 -2 per head, between head emergence and the end of flowering. Repeat as required. Use the higher rate for longer residual protection
Sunflowers	TO PROTECT BEES and ensure adequate pollination, application during flowering should be avoided. If application is necessary at flowering apply early morning or late afternoon when bees are not actively foraging.				
	Rutherglen bug (<i>Nysius vinitor</i>)	Vic, Tas, WA only	250 mL/ha	21 days (harvest)	Apply from budding when adult numbers per plant reach 10 to 15 in dryland crops and 20 to 25 in irrigated crops. After flowering, apply when adult numbers on the face of heads reach 20 to 25. Repeat as required.
	Native budworm (<i>Helicoverpa punctigera</i>)	Qld, NSW, Vic, ACT, NT, WA only	300 or 400mL/ha		Crop checking should be aimed to detect larvae as they hatch. Small larvae are easier to kill than large larvae. Apply when the infestation reaches an average of 2-3 larvae per head or when economic damage is occurring. Repeat as required. Apply before the heads turn downwards to ensure adequate coverage. Use the higher rate if larvae longer than 10mm are present. Best results will be obtained by applying at egg hatch.
	Corn earworm (<i>Helicoverpa armigera</i>)				Thoroughly and regularly check the crop. Apply when numbers are sufficient to cause economic damage. Preferably apply to eggs. In NSW and Qld, apply to larvae only if they are less than 5mm long. Repeat as required. Use the higher rate under heavy pest pressure.
Grey cluster bug (<i>Nysius clevelandensis</i>), Rutherglen bug (<i>Nysius vinitor</i>)				Apply from budding when adult numbers per plant reach 10 to 15 in dryland crops and 20 to 25 in irrigated crops. After flowering, apply when adult numbers on the face of heads reach 20 to 25. Repeat as required. The higher rate should be used when numbers are very high.	
Sweet corn	Native budworm (<i>Helicoverpa punctigera</i>) Corn earworm (<i>Helicoverpa armigera</i>)	All States	300 or 400mL/ha	7 days (harvest)	Thoroughly and regularly check the crop. The level of cob damage tolerated varies with market requirements. FRESH MARKET CORN: Apply at 5-8 day intervals, accordingly to pest incidence, from tassel emergence until the silks wither. PROCESSING CORN: Apply from early silking according to pest incidence. Larvae in protected feeding sites within the cob are not effectively controlled. Apply before this situation occurs. Best results will be obtained by applying at egg hatch. Use the higher rate if larvae longer than 10mm are present. To help contain pyrethroid resistance in <i>Helicoverpa armigera</i> in summer crops, do NOT apply to corn earworm longer than 5mm.

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS	
Tobacco	Native budworm (<i>Helicoverpa punctigera</i>) Tobacco budworm (<i>Helicoverpa armigera</i>)	Vic, WA only	30 or 40mL/100L	7 days (harvest)	Apply from just after transplanting on a 7 to 10 day schedule, according to pest incidence. Apply as a medium to fine spray using hollow and/or solid cone nozzles. The spray volume should be gradually increased as the plants grow, from 200L/ha just after transplanting to 1000L/ha at maturity. Use the higher rate when larvae longer than 10mm are present or when egg laying is intense.	
Tomatoes (bush and trellis)	Native budworm (<i>Helicoverpa punctigera</i>)	All states	LOW VOLUME: 200, 300 or 400 mL/ha	1 day (harvest)	Do NOT apply to trellis tomatoes by aircraft. Apply on a 7 to 10 day schedule while pests are active. Use the middle rate when pest activity is high and/or when larvae between 10 and 20mm are present. Use the highest rate when larvae longer than 20mm are present and/or when interruption of the schedule enables a very severe infestation to develop. LOW VOLUME: By ground-rig: Apply in 100 to 400L of water per hectare as a fine spray. By aircraft: apply in a minimum of 10L of water per hectare as a spray of 100 to 150 microns VMD. HIGH VOLUME: Apply as a medium to fine spray. Gradually increase the spray volume as the plants grow, from 200L/ha just after transplanting establishment to 1000L/ha at maturity.	
	Tomato grub (<i>Helicoverpa armigera</i>)	Vic, Tas, SA, WA only	HIGH VOLUME: 20, 30 or 50 mL/100L			
	Cluster caterpillar (<i>Spodoptera litura</i>)	Qld, NSW, ACT, WA, NT only				
	Tomato grub (<i>Helicoverpa armigera</i>)	Qld, NSW, NT only	LOW VOLUME: 300mL/ha HIGH VOLUME: 30mL/100L			Thoroughly check the crop at 2-3 day intervals from transplanting/emergence. Apply according to pest incidence. Preferably apply to eggs. Apply to larvae only if they are less than 5mm long. Apply using the methods described for native budworm above.
	Plague thrips (<i>Thrips imaginis</i>)	Qld, NSW, ACT, Vic, Tas, WA, NT only	LOW VOL: 130mL/ha HIGH VOL: 18mL/100L			The crop should be frequently checked when it is flowering for the presence of the pest. Apply when the infestation reaches an economically damaging level using the application methods as described above.

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

WITHHOLDING PERIODS:

ASPARAGUS, BROCCOLI, BRUSSELS SPROUTS, CABBAGES, CAULIFLOWERS, CHINESE CABBAGE, KALE, KOHLRABI, TOMATOES, TURNIPS: -
DO NOT HARVEST FOR 1 DAY AFTER APPLICATION

LETTUCE: - DO NOT HARVEST FOR 3 DAYS AFTER APPLICATION

PASTURES: - DO NOT GRAZE FOR 3 DAYS AFTER APPLICATION.
DO NOT CUT FOR STOCK FEED FOR 14 DAYS AFTER APPLICATION.

MAIZE, MUNG BEANS, NAVY BEANS, RICE, SORGHUM, SOYBEANS, SWEET CORN, TOBACCO: -
DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION

WINTER CEREALS: - DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION
DO NOT GRAZE TREATED STUBBLE FOR 14 DAYS AFTER APPLICATION

LUCERNE: - DO NOT GRAZE OR CUT FOR STOCK FEED FOR 14 DAYS AFTER APPLICATION.

COTTON, LINSEED, STONE FRUIT & POME FRUIT: -
DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION

CANOLA: - DO NOT GRAZE OR CUT FOR STOCKFEED FOR 21 DAYS AFTER APPLICATION
DO NOT CUT AND WINDROW FOR HARVEST FOR 21 DAYS AFTER APPLICATION

CHICKPEAS: - DO NOT HARVEST FOR 21 DAYS AFTER APPLICATION.
DO NOT GRAZE OR CUT FOR STOCK FEED FOR 35 DAYS AFTER APPLICATION.

SUNFLOWERS: - DO NOT HARVEST FOR 21 DAYS AFTER APPLICATION

FIELD PEAS & LUPINS: - DO NOT HARVEST FOR 4 WEEKS AFTER APPLICATION

FABA BEANS: - DO NOT HARVEST FOR 4 WEEKS AFTER APPLICATION.
DO NOT GRAZE OR CUT FOR STOCK FEED FOR 35 DAYS AFTER APPLICATION.

LINOLA: - DO NOT HARVEST FOR 12 WEEKS AFTER APPLICATION

GENERAL INSTRUCTIONS

AlphaSip Duo 100 Insecticide is a contact and residual insecticide. It can be used as a protective treatment when applied at regular intervals or as a knockdown treatment to control existing infestations.

INSECTICIDE RESISTANCE WARNING

For insecticide resistance management AlphaSip Duo 100 Insecticide is a Group 3A insecticide. Some naturally occurring insect biotypes resistant to AlphaSip Duo 100 Insecticide and other Group 3A insecticides may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if AlphaSip Duo 100 Insecticide or other Group 3A Insecticides are used repeatedly. The effectiveness of AlphaSip Duo 100 Insecticide on resistant individuals could be significantly reduced. Since occurrence of resistant individuals is difficult to detect prior to use, Sipcam Pacific Australia Pty Ltd accepts no liability for any losses that may result from the failure of AlphaSip Duo 100 Insecticide to control resistant insects. AlphaSip Duo 100 Insecticide may be subject to specific resistance management strategies. For further information contact your local supplier, Sipcam Pacific Australia Pty Ltd representative or local department of agriculture agronomist.

In NSW and Qld, application of this product to *Helicoverpa armigera* larvae longer than 5mm may not only be ineffective but it may increase the level of synthetic pyrethroid resistance. This product should NOT be used to treat infestations that were not controlled by an earlier application of it or another synthetic pyrethroid. Infestations not controlled by this product should be treated with an insecticide from another chemical group such as NUDRIN* will assist with the management of synthetic pyrethroid resistant *Helicoverpa armigera*.

GROUP 3A INSECTICIDE

Mixing

Add the required quantity of AlphaSip Duo 100 Insecticide to water in the spray tank and mix thoroughly. Maintain agitation during mixing and application.

Application

AlphaSip Duo 100 Insecticide can be applied by ground or aircraft. Thorough coverage is essential to ensure adequate control. Apply during the cooler parts of the day or night.

Ground Application - For low volume spraying of field crops with ground rigs, use a total volume of 50-200L/ha except for sweet corn, tomatoes and tobacco where higher volumes should be used. Drop arms should be used on ground rigs in row crops taller than 30cm (0.3m). The application should be made as a fine spray, preferably using hollow cone nozzles, unless directed in the Critical Comments.

Aerial Application - Do NOT apply to trellis tomatoes by aircraft. Use at least 10L/ha of total spray volume. If possible, spray in a crosswind. Avoid spraying in calm conditions or when wind is light and variable in direction. Apply as a spray of 100-150 microns VMD.

COMPATIBILITY

This product is compatible with AZODRIN* 400, Dithane+M45, Kelthane+EC, Kocide+NUDRIN* INSECTICIDE, NUDRIN 225*, Parathion 500*, Predator+300, Ridomil+, Wuxal+Select*.

Do NOT mix AlphaSip Duo 100 Insecticide with wettable powders and WDG's BEFORE addition to spray tank. AlphaSip Duo 100 Insecticide can be mixed with Dithane WDG providing the mixture is agitated efficiently and used immediately.

Read the label of any chemicals being mixed with this product, and follow all instructions and restrictions relating to their use.

PROTECTION OF LIVESTOCK

Dangerous to bees. Do NOT spray on any plants in flower while bees are foraging. AlphaSip Duo 100 Insecticide is known to have a deterrent effect on foraging bees for a short period of time after spraying.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Dangerous to fish and aquatic invertebrates such as yabbies. DO NOT contaminate fish ponds, drains, rivers or streams with product or used containers. Drift and run-off from treated areas may be hazardous to fish or crustaceans in adjacent sites.

STORAGE AND DISPOSAL (20L, 100L, 200L containers)

Store in the closed, original container, in a cool, well-ventilated area. Do NOT store for prolonged periods in direct sunlight. 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 container to recycler or designated collection point. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If not available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers should not be burnt.

STORAGE AND DISPOSAL (1000L container)

Store in the closed, original container, in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage. Do not dispose of undiluted chemicals on-site. This container remains the property of Sipcam Pacific Australia Pty Ltd.

SAFETY DIRECTIONS

Harmful if swallowed. Will irritate the eyes and skin. Facial skin contact may cause temporary facial numbness. Avoid contact with eyes and skin. Avoid inhaling vapour or spray mist. When preparing the spray, wear cotton overalls buttoned to the neck and wrist, washable hat, elbow-length PVC gloves and a face shield or goggles. 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, face shield or goggles 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.

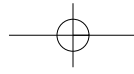
MATERIAL SAFETY DATA SHEET

For further information, refer to the Material Safety Data Sheet (MSDS) which is available from the supplier or from our web site, www.sipcam.com.au

NOTICE TO BUYER

Sipcam Pacific Australia Pty Limited (Sipcam) shall not be liable for any loss, injury, damage or death whether consequential or otherwise whatsoever or howsoever arising whether through negligence, use under abnormal conditions or otherwise in connection with the sale, supply, use or application of this product. The supply of this product is on the express condition that the purchaser does not rely on Sipcam's skill or judgment in purchasing or using the product and every person dealing with this product does so at their own risk.

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