

**POISON**

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

**Trio**

**Alpha-Cypermethrin**

**100 EC Insecticide**

**Label A:**

**ACTIVE CONSTITUENT: 100 g/L ALPHA-CYPERMETHRIN**

**SOLVENT: 741.9 g/L LIQUID HYDROCARBON**

**Label B:**

**ACTIVE CONSTITUENT: 100 g/L ALPHA-CYPERMETHRIN**

**SOLVENT: 755 g/L HYDROCARBON LIQUID**

<b>GROUP</b>	<b>3A</b>	<b>INSECTICIDE</b>
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**Controls insect pests of Cereals, Cotton, Grain Legumes, Oilseeds,  
Pastures, Pome and Stone Fruits, Rice, Trees & Ornamentals,  
Tobacco & Vegetables as specified in the Directions for Use table.**

**IMPORTANT: READ THE ATTACHED LEAFLET BEFORE USE**

**Contents: 5L – 1000L**

CTS Chemicals Pty Ltd. ABN 22 605 759 644  
Manning Buildings, 135 High Street Mall  
Fremantle WA 6160 Australia  
Phone 1800 749 140

## **STORAGE AND DISPOSAL**

Do not store below 4°C.

Store in the original container, tightly closed in a safe well-ventilated area, as cool as possible. DO NOT store for prolonged periods in direct sunlight.

Triple-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 deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.

**For refillable containers:** Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

### **drumMUSTER Containers**

This container can be recycled if it is clean, dry, free of visible residues and has the drumMUSTER logo visible. Triple-rinse container for disposal. Dispose of rinsate by adding it to the spray tank. Do not dispose of undiluted chemical 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.

## **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 chemical resistant 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 INSTRUCTIONS**

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26, New Zealand 0800 764 766.

## **SAFETY DATA SHEET**

Additional information is listed in the Safety Data Sheet that can be obtained from the supplier.

## **CONDITIONS OF SALE**

CTS Chemicals Pty. Ltd. makes no warranty or guarantee and will not accept any responsibilities whatsoever and howsoever arising and whether for consequential, special or indirect loss or otherwise in connection with the supply, storage or use of these goods other than responsibility for the merchantable quality of the goods and such responsibilities mandatory imposed by Statutes applicable to the sale or supply of these goods. Always read the product labels on the container for all instructions, recommendations, critical comments and conditions of sale.

APVMA Approval No: 90956/136591

In a Transport Emergency Dial 000 Police or Fire Brigade

Batch No:

DOM:

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## DIRECTIONS FOR USE

### RESTRAINTS

DO NOT apply if rainfall 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 to *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*.

### Spray drift restraints

Specific definitions for terms used in this section of the label can be found at [apvma.gov.au/spraydrift](http://apvma.gov.au/spraydrift).

DO NOT allow bystanders to come into contact with the spray cloud.

DO NOT apply in a manner that may cause an unacceptable impact to native vegetation, agricultural crops, landscaped gardens and aquaculture production, or cause contamination of plant or livestock commodities, outside the application site from spray drift. Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.

DO NOT apply unless the wind speed is between 3 and 20 kilometres per hour at the application site during the time of application.

DO NOT apply if there are hazardous surface temperature inversion conditions present at the application site during the time of application. Surface temperature inversion conditions exist most evenings 1 to 2 hours before sunset and persist until 1 to 2 hours after sunrise.

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
<b>CEREALS</b>					
Winter cereals	Cutworms ( <i>Agrotis</i> spp.)	Vic, SA, WA only	75 mL/ha	7 days (harvest) 14 days (stubble grazing)	DO NOT apply more than a total of 540 mL/ha per season to any one crop. For ULTRA LOW VOLUME use, see ULV application section in this label. 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, NSW, ACT only	75 or 150 mL/ha		Use the higher rate when the infestation is severe, or when there are larvae longer than 10 mm, or when longer residual activity is required.

Pasture Webworm ( <i>Hednota</i> spp.)	NSW, ACT, Vic, SA, WA only	75 mL/ha	DO NOT apply as a ULV application. <u>Pre-planting:</u> Trio Alpha-Cypermethrin 100 EC Insecticide may be applied with knockdown herbicides prior to planting. Apply from the last week in May when the larvae have emerged. Pasture should be closely grazed to ensure good spray penetration. Use high water volumes eg. 100 L/ha. DO NOT apply on dense pasture. <u>Post crop emergence:</u> Inspect crop regularly from emergence and spray at first sign of pest activity. Repeat as required.
Common Armyworm ( <i>Mythimna convecta</i> ) Southern Armyworm ( <i>Persectania ewingii</i> )	All States	240 mL/ha	Apply before “head lopping” occurs when larval numbers exceed two or more per square metre. Spray in the cool of the day (late afternoon) when larvae are most active. Spray to achieve good crop penetration. This rate is effective against small (6 mm) and large (20 mm) grubs. Monitor crop closely and retreat if necessary. Poor control may occur in crops that have lodged. See application section for correct water rates.
Redlegged Earth Mite ( <i>Halotydeus destructor</i> )	NSW, ACT, Vic, Tas, SA, WA only	100 mL/ha	<u>Pre-emergence:</u> Apply by ground rig only. Treat infested paddocks after sowing but prior to crop emergence when soil is moist. Monitor Redlegged Earth Mite numbers and re-treat if necessary. DO NOT apply as a ULV application.
Redlegged Earth Mite ( <i>Halotydeus destructor</i> ), Blue Oat Mite ( <i>Penthaleus major</i> )		50 mL/ha	Apply when mite numbers reach damaging levels. Spray seeding crops if silvering or whitening (bleaching) of leaves is causing a reduction in crop growth. If possible, spray on a mild morning when mites are actively feeding on crop leaves. DO NOT use as a ULV application.
Aphid Control to prevent Barley Yellow Dwarf Virus transmission		125 mL/ha	Apply at 5 to 6 weeks after sowing. Repeat the application 4 to 5 weeks later to maintain protection against

					aphid transmission to BYDV until after stem elongation.
Maize	* Corn Earworm ( <i>Helicoverpa armigera</i> )	Qld, NSW, ACT, Vic, WA, NT only	300 or 400 mL/ha	7 days (harvest)	For ULTRA LOW VOLUME use, see ULV application section in this label. Apply at early silking. Use the higher rate if large larvae are present. To help contain pyrethroid resistance in <i>Helicoverpa armigera</i> in summer crops, do not apply to larvae > 5mm in Northern Qld and NSW.
	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 10 mm are present.
Rice (both aerial and drill sown rice)	Common Armyworm ( <i>Mythimna convecta</i> )	NSW, WA only	200 mL/ha	7 days	DO NOT use more than 400 mL/ha per season. Apply to drained fields only. Inspect crop regularly for grubs. Apply by aircraft in 20-30 litres of water/ha. Spray in the cool of the day (early morning or late afternoon) when larvae are active. Monitor crop closely and re-treat if necessary. Poor control may occur in crops that have lodged. See application section for correct water rates.
	Bloodworm		100 mL/ha		Apply to water immediately after sowing using helicopter or fixed-wing aircraft. A second treatment may be required approximately 10 to 14 days later. Plants are not vulnerable to Bloodworm damage after secondary roots have developed. DO NOT release water from treated areas off-farm until the retention period specified by local irrigation authorities have been met.
Sorghum	* Corn Earworm ( <i>Helicoverpa armigera</i> ) Native Budworm ( <i>Helicoverpa punctigera</i> )	Qld, NSW, ACT, WA, NT only	300 or 400 mL/ha	7 days (harvest)	For ULTRA LOW VOLUME use, see ULV application section in this label. 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. Repeat as required. To help contain pyrethroid resistance in <i>Helicoverpa armigera</i> in summer crops, do not apply to larvae > 5mm in Northern Qld and NSW.
	Sorghum Midge ( <i>Contarinia sorghicola</i> )		100 or 200 mL/ha		Apply when midge numbers reach 1-2 per head, from emergence to completion of flowering. Use the higher rate for increased residual protection.

# COTTON

Cotton	Native Budworm ( <i>Helicoverpa punctigera</i> )	Qld, NSW, WA, NT only	300 mL/ha	14 days (harvest)	For ULTRA LOW VOLUME use, see ULV application section in this label. Apply as indicated by field checks. Application should be timed to coincide with egg hatching, before larvae are in protected feeding sites. Apply when egg laying is light i.e., 5-20 brown eggs/m or 2-5 newly hatched larvae per 100 terminals.
			400 mL/ha		Apply when egg laying is heavy and/or larvae are up to 5 mm in length.
			500 mL/ha		Apply when egg laying is continuous, larvae are up to 5 mm in length and longer residual protection is required.
	*Cotton Bollworm ( <i>Helicoverpa armigera</i> )		300 mL/ha		Apply as indicated by field checks. Application should be timed to coincide with egg hatching, before larvae are in protected feeding sites. Apply when egg laying is light i.e., 5-20 brown eggs/m or 2-5 newly hatched larvae per 100 terminals.
			400 mL/ha		Apply when egg laying is heavy and/or larvae are up to 5 mm in length.
			500 mL/ha		Apply when egg laying is continuous, larvae are up to 5mm in length and longer residual protection is required.
	Rough Bollworm ( <i>Earias huegeli</i> )		300 or 400 mL/ha		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 greater than 10 mm are present. Best results will be obtained by applying at egg hatch.
	Green Mirid ( <i>Creontiades dilutes</i> ), Apple Dimpling Bug ( <i>Campylomma liebkechti</i> )		300 or 400 mL/ha		Apply at recommended threshold levels as indicated by field checks. Use higher rate when pest pressure is high and when increased residual protection is required.

#### GRAINS LEGUMES

Chickpeas	Native Budworm ( <i>Helicoverpa punctigera</i> )	Qld, NSW, ACT, Vic, Tas, SA, WA only	200 or 300 mL/ha	21 days (harvest) 5 weeks (grazing)	Apply when damaging pest numbers first appear on the crop and repeat if necessary. Use the higher rate if larvae larger than 10 mm are present. Best results will be obtained by spraying at egg hatch.
		WA only	160 mL/ha		Apply to open, less dense crops when numbers of newly hatched larvae first appear on the crop and repeat as necessary.
	Cutworm ( <i>Agrotis</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 late afternoon or evening.
	Redlegged Earth Mite ( <i>Halotydeus destructor</i> )		100 mL/ha		<u>Pre-emergence:</u> Apply by ground rig only. Treat infested paddocks after sowing but prior to crop emergence when soil is moist. Monitor Redlegged Earth Mite numbers and re-treat if necessary. DO NOT apply as a ULV application.
	Redlegged Earth Mite ( <i>Halotydeus destructor</i> ) Blue Oat Mite ( <i>Penthaleus major</i> )		50 mL/ha		Apply when mite numbers reach damaging levels. DO NOT use as a ULV application.
Faba beans	Native Budworm ( <i>Helicoverpa punctigera</i> )	NSW, ACT, Vic, Tas, SA, WA only	200 or 300 mL/ha	4 weeks (harvest) 5 weeks (grazing)	Apply when pest numbers reach damaging levels and repeat if necessary. Use the higher rate if larvae larger than 10 mm are present. Best results will be obtained by spraying at egg hatch.

		WA only	160 mL/ha		Apply to open, less dense crops when numbers of newly hatched larvae first appear on the crop and repeat as necessary.
	Cutworm ( <i>Agrotis</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 late afternoon or evening.
	Redlegged Earth Mite ( <i>Halotydeus destructor</i> )		100 mL/ha		<u>Pre-emergence:</u> Apply by ground rig only. Treat infested paddocks after sowing but prior to crop emergence when soil is moist. Monitor Redlegged Earth Mite numbers and re-treat if necessary. DO NOT apply as a ULV application.
	Redlegged Earth Mite ( <i>Halotydeus destructor</i> ) Blue Oat Mite ( <i>Penthaleus major</i> )		50 mL/ha		Apply when mite numbers reach damaging levels. DO NOT use as a ULV application.
Lupins	Native Budworm ( <i>Helicoverpa punctigera</i> )	NSW, ACT, Vic, SA only	200 or 300 mL/ha	4 weeks (harvest)	DO NOT apply more than a total of 600 mL/ha per season to any one lupin crop. For ULTRA LOW VOLUME use, see ULV application section in this label. Apply when damaging pest numbers first appear on the crop and repeat if necessary. Use the higher rate if larvae larger 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>Agrotis</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 late afternoon or evening.
	Common Armyworm ( <i>Mythimna convecta</i> ), Southern Armyworm ( <i>Persectania ewingii</i> )	NSW, ACT, WA only	240 mL/ha		Spray in the cool of the day (late afternoon) when larvae are most active.

	Redlegged Earth Mite ( <i>Halotydeus destructor</i> )	NSW, ACT, Vic, Tas, SA, WA only	100 mL/ha		<u>Pre-emergence:</u> Apply by ground rig only. Treat infested paddocks after sowing but prior to crop emergence when soil is moist. Monitor Redlegged Earth Mite numbers and re-treat if necessary. DO NOT apply as a ULV application.
	Redlegged Earth Mite ( <i>Halotydeus destructor</i> ) Blue Oat Mite ( <i>Penthaleus major</i> )		50 mL/ha		Apply when mite numbers reach damaging levels. DO NOT use as a ULV application.
Peas (field)	Pea Weevil ( <i>Bruchus pisorum</i> )	NSW, ACT, Vic, SA, WA only	160 or 200 mL/ha	4 weeks (harvest)	For ULTRA LOW VOLUME use, see ULV application section in this label. Check crops for adult weevils every three to four days from the beginning of flowering. Apply during flowering prior to egg laying when the weevil population reaches one or more/25 sweeps of a sweep net.
	Native Budworm ( <i>Helicoverpa punctigera</i> )		160 mL/ha		Check crops for larvae every three to four days from the beginning of flowering. Apply to open, less dense crops when damaging numbers of newly hatched larvae first appear on the crop and repeat as necessary.
			200 or 300 mL/ha		Check crops for larvae every three to four days from the beginning of flowering. 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 applying at egg hatch.
	Cutworm ( <i>Agrotis</i> spp.)	NSW, ACT, Vic, SA, WA only	75 mL/ha		Check emerging and established crops in the late afternoon and evening for caterpillars crawling on the soil surface. Spray late afternoon or evening.
	Redlegged Earth Mite ( <i>Halotydeus destructor</i> )	NSW, ACT, Vic, Tas, SA, WA only	100 mL/ha		<u>Pre-emergence:</u> Apply by ground rig only. Treat infested paddocks after sowing but prior to crop emergence when soil is moist. Monitor Redlegged Earth Mite numbers and re-treat if necessary. DO NOT apply as a ULV application.

	Redlegged Earth Mite ( <i>Halotydeus destructor</i> ) Blue Oat Mite ( <i>Penthaleus major</i> )	NSW, Vic, Tas, SA, WA only	50 mL/ha		Apply to established crops when mites reach damaging levels. DO NOT use as a ULV application.
Soybeans	Soybeans Native Budworm ( <i>Helicoverpa armigera</i> ), * Corn Earworm ( <i>Helicoverpa armigera</i> )	Qld, NSW, ACT, WA, NT only	300 or 400 mL/ha	7 days (harvest)	For ULTRA LOW VOLUME use, see ULV application section in this label. Apply when flower or pod feeding numbers reach 1-2 per metre of row. Apply the higher rate when canopy is dense or if longer residual control is required. To help contain pyrethroid resistance in <i>Helicoverpa armigera</i> in summer crops, do not apply to Corn Earworm larvae > 5mm in Northern NSW & Qld. Best results will be obtained by applying at egg hatch.

#### GRAPEVINES

Grapevines (non-bearing)	Pink Cutworm ( <i>Agrotis munda</i> ), Apply Weevil (Curculio Beetle) ( <i>Otiorhynchus cribricollis</i> ) Garden Weevil ( <i>Phlyctinus callosus</i> )	NSW, ACT, Vic, Tas, SA, WA only	<b>Dilute Spraying</b> 100 mL/100 L <b>Concentrate Spraying</b> Refer to the Application section	-	Monitor young vines during Spring and early Summer and apply at the first sign of leaf damage. Spray the leaves, canes and the soil around each vine to a diameter of 30 cm, 70-80 mL of dilute spray should be sufficient for each vine. If pest infestations persist, a second application may be required after three weeks. 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.
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#### OIL SEEDS

Canola	Native Budworm ( <i>Helicoverpa punctigera</i> )	NSW, ACT, Vic, Tas, SA, WA only	200 or 300 mL/ha	21 days (cutting for harvest or stockfeed or grazing)	DO NOT use more than a total of 400 mL/ha per season. For ULTRA LOW VOLUME use, see ULV application section in this label. Inspect the crop regularly during and immediately after flowering. Apply when damaging pest numbers first appear on the crop. 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 larger than 10 mm are present.
	Tobacco Looper ( <i>Chrysodeixis argentifera</i> )				

	Vegetable Weevil ( <i>Listroderes difficilis</i> )		400 mL/ha		Crops should be inspected as they emerge. Border sprays are required to control invading adults. Trio Alpha-Cypermethrin 100 EC Insecticide should be applied when cotyledons and leaves are being eaten.
	Cabbage White Butterfly ( <i>Pieris rapae</i> ), Cabbage Moth ( <i>Plutella xylostella</i> )				Apply according to pest pressure.
	Redlegged Earth Mite ( <i>Halotydeus destructor</i> )		100 mL/ha		<u>Pre-emergence:</u> Apply by ground rig only. Treat infested paddocks after sowing but prior to crop emergence when soil is moist. Monitor Redlegged Earth Mite numbers and re-treat if necessary. DO NOT apply as a ULV application.
	Redlegged Earth Mite ( <i>Halotydeus destructor</i> ) Blue Oat Mite ( <i>Penthaleus major</i> )		50 mL/ha		Apply when mite numbers reach damaging levels. DO NOT apply as a pre-emergent treatment.
Linola	Native Budworm ( <i>Helicoverpa punctigera</i> )	NSW, ACT, Vic, Tas, SA, WA only	160 or 200 mL/ha	12 weeks (harvest)	DO NOT use more than a total of 400 mL/ha per season to any one crop. For ULTRA LOW VOLUME use, see ULV application section in this label. Inspect the 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 30-35 L/ha. Use the higher rate if larvae larger than 10 mm are present.
Linseed	Native Budworm ( <i>Helicoverpa punctigera</i> )	NSW, ACT, Vic, Tas, SA, WA only	200 or 300 mL/ha	14 days (harvest)	For ULTRA LOW VOLUME use, see ULV application section in this label. 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 larger than 10 mm are present. Best results will be obtained by spraying at egg hatch.
	Cutworm ( <i>Agrotis</i> spp.)	NSW, ACT, Tas,	75 mL/ha		Check emerging and establishing crops in the late afternoon and evening for caterpillars crawling on

		Vic, SA, WA only			the soil surface and feeding on the seedlings. Spray late afternoon and evening.
Sunflowers	Native Budworm ( <i>Helicoverpa punctigera</i> ) * Corn Earworm ( <i>Helicoverpa armigera</i> )	Qld, NSW, ACT, Vic, WA, NT only	300 or 400 mL/ha	21 days (harvest)	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. For ULTRA LOW VOLUME use, see ULV application section in this label. Apply when an average 2-3 larvae are present per head or when larvae are damaging plants. Best results will be obtained by spraying at egg hatch. DO NOT apply to <i>Helicoverpa armigera</i> larvae larger than 5 mm in NSW & Qld. Use the higher rate when insect pressure is heavier and when longer residual control is required.
	Grey Cluster Bug ( <i>Nysius clevelandensis</i> ) Rutherglen Bug ( <i>Nysius vinitor</i> )	Qld, NSW, ACT, WA, NT only			Apply from budding when adult numbers per plant reach 10 to 15 in dryland crops, and 20-25 in irrigated crops. After flowering apply when adult numbers on the face of the head reach 20 to 25. Repeat as required. The highest rate should be used when numbers are very high.
	Rutherglen Bug ( <i>Nysius vinitor</i> )	Vic, Tas, WA only	250 mL/ha		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.
PASTURES					
Lucerne (Seed and Forage crops)	Native Budworm ( <i>Helicoverpa punctigera</i> )	NSW, ACT, Vic, Tas, SA, WA only	160 mL/ha	14 days (grazing or cutting for stock feed)	For ULTRA LOW VOLUME use, see ULV application section in this label. DO NOT use more than a total of 160 mL/ha per cut. Apply when pest populations reach economically damaging levels. Apply to larvae less than 5 mm in length.
	Green Mirid ( <i>Creontiades dilutes</i> )				DO not apply more than one application per cut or grazing for animal feed. Apply when pest

					populations reach economically damaging levels.
Pastures (Both legume & Grass based pastures)	Wingless Grasshopper ( <i>Phaulacridium vittatum</i> )	All States	160 mL/ha	3 days (grazing) 14 days (cutting for stock feed)	DO NOT use more than a total of 320 mL/ha per season. For ULTRA LOW VOLUME use, see ULV application section in this label. Apply to infested areas. Spraying is most effective on newly emerged hoppers before they begin dispersing. Later sprays should be applied before the start of egg laying. Good coverage is essential.
	Brown Pasture Looper ( <i>Ciampa arietara</i> )	NSW, ACT, Vic, SA, Tas, WA only	50 mL/ha		Apply when pest populations reach economically damaging levels.
	Blackheaded Pasture Cockchafer ( <i>Aphodius tasmaniae</i> )		100 mL/ha		Spraying is most effective when larvae are detected and treated early. Suspect paddocks should be sampled by digging after the first substantial rain in April/May to ensure grubs are present in sufficient numbers to warrant treatment. Spraying after June will give poorer results.
	Redlegged Earth Mite ( <i>Halotydeus destructor</i> )		100 mL/ha		<u>Pre-emergence:</u> Apply by ground rig only. Treat infested paddocks after sowing but prior to crop emergence when soil is moist. Monitor Redlegged Earth Mite numbers and re-treat if necessary. DO NOT apply as a ULV application.
	Redlegged Earth Mite ( <i>Halotydeus destructor</i> ), Blue Oat Mite ( <i>Penthaleus major</i> )		50 mL/ha		DO NOT use a ULV application. <u>Autumn/Winter:</u> Apply after the opening rains in late autumn/early winter 2-3 weeks after egg hatch occurs. Trio Alpha-Cypermethrin 100 EC Insecticide is rainfast after spraying deposits have dried on the leaf surface. Trio Alpha-Cypermethrin 100 EC Insecticide can be mixed with herbicides used in the winter cleaning of sub-clover pastures. <u>Spring:</u> If RLEM/BOM mite numbers increase in the spring, spray again before diapause egg production begins. Trio Alpha-Cypermethrin 100 EC Insecticide can be mixed with herbicides used for spray

					topping pastures. DO NOT apply as a pre-emergence treatment.
POME & STONEFRUIT					
Apples Pears	Apple Weevil ( <i>Otiorhynchus cribricollis</i> ), Garden Weevil ( <i>Phlyctinus callosus</i> )	NSW, Vic, SA, WA only	<b>Dilute Spraying</b> 100 mL/100 L water <b>Concentrate Spraying</b> Refer to the Application section	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 3-4 weeks later may be needed. 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.
Apricots Nectarines Peaches Plums	Apple Weevil ( <i>Otiorhynchus cribricollis</i> ), Garden Weevil ( <i>Phlyctinus callosus</i> )	WA only			
TREES & ORNAMENTALS					
Eucalypts	Adults and larvae of Chrysomelid Leaf Beetle or Eucalyptus Leaf Beetle ( <i>Chrysophtharta</i> spp.), Eucalyptus Weevil ( <i>Gonipterus</i> spp), Autumn Gum Moth ( <i>Mnesampela</i> spp.), Bronzed Field Beetle ( <i>Adelium</i> spp.), Adults of <i>Liparetrus</i> spp., <i>Cadmus</i> spp.	All States	250-300 mL/ha	-	Ground or aerial applications depending on size of trees. Apply by fixed wing aircraft or by helicopter using hydraulic nozzles 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. For ULTRA LOW VOLUME use, see ULV application section of this label.
Banksias Ornamentals	Banksia moth ( <i>Danima banksiae</i> )	WA only	20 mL/100 L		Apply on a regular programme at 2 week intervals at early flower development. Commence spraying when blooms are immature and continue until flowers are fully developed.
TOBACCO					
Tobacco	Native Budworm ( <i>Helicoverpa punctigera</i> ), Tobacco Budworm ( <i>Helicoverpa armigera</i> )	Qld, Vic, WA only	30 or 40 mL/100L	7 days (harvest)	Apply on a 7 to 10 day schedule from just after transplanting in a volume of 200 to 1000 L/ha depending on crop heights. Use the higher rate when larvae greater than



					10 mm are present or when egg laying is intense. Apply as a fine spray using hollow cone nozzles. The spray volume should be gradually increased as the plants grow, from 200 L/ha just after transplanting to 1000 L/ha at maturity. Use the higher rate when larvae longer than 10 mm are present or when egg laying is intense.
<b>VEGETABLES</b>					
Asparagus (Not for use on white asparagus)	Garden Weevil ( <i>Phlyctinus callosus</i> )	WA only	100 mL/100 L	1 day	<b>Caution:</b> Not for use on white asparagus, there have been reports of some phytotoxicity when using alpha-cypermethrin. Apply in spring after weevil emergence, at up to 500 L spray solution per hectare. Day time spraying is effective but superior control may be achieved if spray is applied at night. Depending on pest pressure, repeat applications may be required. Applications to fern, after spear harvest may reduce carry-over of Garden Weevil for the following season.
Beans (Mung and Navy)	Native Budworm ( <i>Helicoverpa punctigera</i> ), * Corn Earworm ( <i>Helicoverpa armigera</i> )	Qld, NSW, ACT, WA, NT only	300 or 400 mL/ha	7 days (harvest)	For ULTRA LOW VOLUME use, see ULV application section in this label. Apply when flower or pod feeding numbers reach 1-2 per metre of row. Use the higher rate when the canopy is dense. To help contain pyrethroid resistance in <i>Helicoverpa armigera</i> in summer crops, do not apply to Corn Earworm larvae >5 mm in Northern NSW and Qld. Best results will be obtained by applying at egg hatch.

**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, KOHL RABI, 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.**

**SORGHUM, SOYBEANS, MUNG BEANS, NAVY BEANS, SWEET CORN, MAIZE, RICE, TOBACCO:**

**DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION.**

**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 & POME FRUIT: DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION.**

**SUNFLOWERS: DO NOT HARVEST FOR 21 DAYS AFTER APPLICATION.**

**CANOLA: DO NOT HARVEST 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 STOCKFEED FOR 35 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 STOCKFEED FOR 35 DAYS AFTER APPLICATION.**

**LINOLA: DO NOT HARVEST FOR 12 WEEKS AFTER APPLICATION.**

## **GENERAL INSTRUCTIONS**

Trio Alpha-Cypermethrin 100 EC 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 larvae. Best results will be obtained by spraying at egg hatch. Thorough coverage is essential to ensure adequate control. Apply during the cooler parts of the day or night. The product can be applied mixed either with water or oil based bulking agents such as 776 g/L petroleum oil product or compatible ULV products.

## **MIXING**

Low Volume and High Volume applications by ground rig or aircraft when Trio Alpha-Cypermethrin 100 EC Insecticide is applied with water carrier.

Add the required quantity of Trio Alpha-Cypermethrin 100 EC Insecticide to water in the spray tank and mix thoroughly. Maintain agitation during mixing and application.

Ultra low volume (ULV) applications by aircraft when Trio Alpha-Cypermethrin 100 EC Insecticide is applied with oil based bulking agents.

This product can be mixed with 776 g/L petroleum oil product or other compatible products (see compatibility section). First add the mixing partner to the spray tank and then, with the agitator in motion, add the required quantity of Trio Alpha-Cypermethrin 100 EC Insecticide to the spray tank. DO NOT mix with water and ensure that no water is in the spraying system.

## **APPLICATION – Grapevines, pome and stone fruit**

***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 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.

**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 concentration factor in this example is:  $3 \times$  (ie.  $1500 \text{ L} \div 500 \text{ L} = 3$ ).
4. If the dilute label rate is 100 mL/100 L, then the concentrate rate becomes  $3 \times 100$ , that is 300 mL/100 L of concentrate spray.

The chosen spray volume, amount of product per 100L 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.

**APPLICATION** – Crops other than grapevines, pome and stone fruit

Low Volume and High Volume by ground rig or aircraft when Trio Alpha-Cypermethrin 100 EC Insecticide is applied with water carrier.

Trio Alpha-Cypermethrin 100 EC Insecticide can be applied by ground or aircraft with a water carrier. Thorough coverage is essential to ensure adequate control. Always apply with a non-ionic surfactant unless detailed on the label of a tank mix partner. Apply during the cooler parts of the day or night.

**Ground Application (water carrier):** For low volume spraying of field crops with ground rigs, use a total volume of 50-200 L/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 30 cm. The application should be made as a fine spray, preferably using hollow cone nozzles and a droplet size category of Medium.

**Aerial Application (water carrier):** DO NOT apply to trellis tomatoes by aircraft. Use a minimum spray volume of 20 L/ha. For spring/early summer applications to cereals, linola, canola, rice and to other dense crops, apply a total spray volume of 30 to 35 L/ha. If possible, spray in a cross wind. Avoid spraying in calm conditions or when wind is light and variable in direction. Apply as a spray of droplet size category of Fine.

**Ultra Low Volume (ULV) application by aircraft:** Trio Alpha-Cypermethrin 100 EC Insecticide mixed with 776 g/L petroleum oil product or compatible products should be applied in a minimum total spray volume of 1.5 L/ha. The minimum application volume in cotton should be 3 L/ha. It should only be applied by aircraft with suitable equipment to provide a droplet size category of Very fine. Applications should be made during the cooler parts of the day or at night. Avoid application in calm or very windy conditions. Preferably apply in light to moderate cross winds.

## COMPATIBILITY

**Low Volume and High Volume by ground rig or aircraft when Trio Alpha-Cypermethrin 100 EC Insecticide is applied with water carrier.**

This product is compatible with petroleum oil product, vegetable oil, paraffinic petroleum oil, mancozeb, fluazifop-p, butoxydim/fluazifop-p, cupric hydroxide, dicofol, propargite, mepiquat, profenofos, dicamba, Copper Hydroxide, methomyl, parathion-methyl, chlorpyrifos, metalaxyl-m, Wuxal, clethodim, dimethoate, paraquat, diquat, paraquat/diquat, glyphosate, diflufenican/MCPA, diflufenican/bromoxynil, Simazine, imazethapyr, copper oxide, 2,4-D amine and ester, 2,4DB and MCPA. DO NOT mix Trio Alpha-Cypermethrin 100 EC Insecticide with wettable powders and water dispersible granules BEFORE

addition to the spray tank. Trio Alpha-Cypermethrin 100 EC Insecticide can be mixed with mancozeb providing the mixture is agitated efficiently and used immediately.

#### **Ultra Low Volume (ULV) application by aircraft**

This product should only be mixed with specific ULV formulations of other insecticides and PBO synergists when mixed according to the directions on the PBO synergist labels.

#### **INSECTICIDE RESISTANCE WARNING**

<b>GROUP</b>	<b>3A</b>	<b>INSECTICIDE</b>
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For insecticide resistance management Trio Alpha-Cypermethrin 100 EC Insecticide is a Group 3A Insecticide. Some naturally occurring insect biotypes resistant to Trio Alpha-Cypermethrin 100 EC 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 Trio Alpha-Cypermethrin 100 EC Insecticide or other Group 3A insecticides are used repeatedly. The effectiveness of Trio Alpha-Cypermethrin 100 EC Insecticide on resistant individuals could be significantly reduced. Since occurrence of resistant individuals is difficult to detect prior to use, CTS Chemicals Pty Ltd accepts no liability for any losses that may result from the failure of Trio Alpha-Cypermethrin 100 EC Insecticide to control resistant insects.

Trio Alpha-Cypermethrin 100 EC Insecticide may be subject to specific resistance management strategies. For further information contact your local supplier, CTS Chemicals representative or local agricultural department agronomist.

In NSW and Qld, application of this product to *Helicoverpa armigera* larvae longer than 5 mm 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 this product or another synthetic pyrethroid. Infestations not controlled by this product should be treated with an insecticide from another chemical group. Application of this product with insecticide from another chemical group will assist in the management of synthetic pyrethroid resistant *Helicoverpa armigera*.

#### **PROTECTION OF LIVESTOCK**

Dangerous to bees. DO NOT spray on any plants in flower while bees are foraging. Trio Alpha-Cypermethrin 100 EC Insecticide is known to have a deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in early morning and late evening while bees are not foraging.

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

Very highly toxic to fish and aquatic life such as yabbies. Do NOT contaminate streams, rivers or watercourses with chemical or used containers. Water from treated rice fields must not be released off-farm until the retention period specified by local irrigation authorities has been met. DO NOT apply or allow spray drift onto adjacent non-target aquatic areas. Allow sufficient buffer distance between downwind non-target water bodies and the sprayed area. Run-off from areas must be prevented from entering drains or watercourses.

#### **STORAGE AND DISPOSAL**

Do not store below 4°C.

Store in the original container, tightly closed in a safe well-ventilated area, as cool as possible. DO NOT store for prolonged periods in direct sunlight.

Triple-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 deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.

**For refillable containers:** Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

### **drumMUSTER Containers**

This container can be recycled if it is clean, dry, free of visible residues and has the drumMUSTER logo visible. Triple-rinse container for disposal. Dispose of rinsate by adding it to the spray tank. Do not dispose of undiluted chemical 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.

### **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 chemical resistant 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 INSTRUCTIONS**

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26, New Zealand 0800 764 766.

### **SAFETY DATA SHEET**

Additional information is listed in the Safety Data Sheet that can be obtained from the supplier.

### **CONDITIONS OF SALE**

CTS Chemicals Pty. Ltd. makes no warranty or guarantee and will not accept any responsibilities whatsoever and howsoever arising and whether for consequential, special or indirect loss or otherwise in connection with the supply, storage or use of these goods other than responsibility for the merchantable quality of the goods and such responsibilities mandatory imposed by Statutes applicable to the sale or supply of these goods. Always read the product labels on the container for all instructions, recommendations, critical comments and conditions of sale.

Additional information required under the Globally Harmonised System (GHS) classification of the substance/mixture:

**Combustible liquid. Harmful if swallowed. Toxic if inhaled. Causes skin irritation. Causes serious eye irritation. May cause cancer. May cause damage to organs through prolonged or repeated exposure. May be fatal if swallowed and enters airways.**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. IF exposed or concerned: Get medical advice/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 advice/attention. IF ON SKIN: Wash with plenty of water and soap. If skin irritation occurs: Get medical advice/attention. Take off all

contaminated clothing and wash it before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a doctor. IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth. IF SWALLOWED: Immediately call a doctor. Do NOT induce vomiting. In case of fire: Use dry chemical, CO2, water spray or regular foam to extinguish. Store locked up.