# Insecticide



# **ACEPHATE 750 SP**

Reg. No. L 7181 Act No. 36 of 1947 N-AR 1929 / W1301428 4: 9/6/2022 - Feb2023

A systemic and contact water-soluble insecticide for the control of pests mentioned on the crops listed.

## **ACTIVE INGREDIENT**

GROUP 1B INSECTICIDE

acephate (organophosphate)

750 g/kg



#### **Hazard Statements:**

Harmful if swallowed.

#### Precautionary Statements:

Wash hands and face thoroughly after handling.
Dispose of content/container to suitable landfill in accordance with

local regulations.



Registration holder: VILLA CROP PROTECTION (PTY) LTD.
Co. Reg. No. 1992/002474/07
PO Box 10413, Aston Manor, 1630
Tel. (011) 396 2233
Website: www.villacrop.co.za

#### 24 HR EMERGENCY NUMBERS:

Griffon Poison Centre: +27 82 446 8946 24 HR Transport / Spill Emergency no: (Hazcall24) +27 86 044 4411 (Client: Villa Crop Protection)

#### **ACEPHATE 750 SP**

Reg. No. L 7181 / N-AR 1929 / W1301428 Act No. 36 of 1947 IRAC INSECTICIDE GROUP CODE: 1B

#### **ACTIVE INGREDIENT:**

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PO Box 10413, Aston Manor, 1630, Tel. (011) 396 2233

## **WARNINGS**

## Withholding periods:

Minimum time between last application and harvest:		
Avocados	35 days	
Apples and Pears	30 days	
Cruciferae and Tomatoes	3 days	
Tree nuts (Almonds, Cashews, Chestnuts, Hazelnuts, Macadamia nuts, Pecans, Pistachio nuts, Walnuts, Coconut, Brazil nuts and Pine nuts)	35 days	
Potatoes	14 days	
Peaches and Plums	28 days	
Table and Wine Grapes	40 days	
Tobacco	14 days	

#### NOTE

THE RECOMMENDED WITHHOLDING PERIOD BETWEEN LAST APPLICATION AND HARVEST MEETS LOCAL RESIDUE REQUIREMENTS BUT MAY NOT MEET EXPORT REQUIREMENTS. IF THE TREATED CROP IS INTENDED FOR THE EXPORT MARKET, CONSULT THE RELEVANT EXPORTING BODY BEFORE APPLICATION OF THE PRODUCT, REGARDING PRE-HARVEST INTERVAL REQUIREMENTS.

## **Hazard statements:**

Harmful if swallowed.

- Handle with care.
- Toxic to bees and wildlife.
- Store in a cool, dry place away from food, feeds, fertilizers and other agricultural remedies.
- Keep out of reach of children, animals and uninformed persons.
- Re-entry: Do not enter treated area until spray deposit has dried unless wearing protective clothing.

## Aerial application:

Notify all inhabitants of the immediate area to be sprayed and issue the necessary warnings. Do not spray over or allow drift to contaminate water of adjacent areas.

Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not warrant that it will be efficacious under all conditions, because the action and effect thereof may be affected by factors such as abnormal soil, climatic and storage conditions, quality of dilution water, compatibility with other substances not indicated on the label and the occurrence of resistance of the pest to the remedy concerned, as well as by the method, time and accuracy of application. The registration holder further does not accept responsibility for damage to crops, vegetation, the environment or harm to man or animal or for lack of performance of the remedy concerned, due to failure of the user to follow the label instructions or to the occurrence of conditions, which could not have been foreseen in terms of the registration. Consult the supplier in event of any uncertainty.

#### **PRECAUTIONS**

# **Precautionary statements:**

Wash hands and face thoroughly after handling.
Do not eat, drink or smoke when using this product.
IF SWALLOWED: Get medical help.
Rinse mouth.

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Dispose of content/container to suitable landfill in accordance with local regulations.

- Do not inhale the powder dust and spray mist.
- Avoid contact with eyes and prolonged or repeated skin contact.
- Wash contaminated clothing after use.
- Avoid drift of spray onto other crops, grazing, rivers, dams and areas not under treatment.
- Clean applicator after use and before using it for other remedies.
- Dispose of wash water where it will not contaminate crops, grazing, rivers and dams.
- Prevent contamination of food, feed, drinking water and eating utensils.
- Invert the empty container over the spray or mixing tank to make sure the container is empty before destroying the container.
- Destroy the empty container by perforation and flattening.
- Never re-use the container for any other purpose.

Relevant hazardous compor	nents
Acephate	75 %

## **FIRST AID TREATMENT**

- <u>General:</u> Remove the victim from the area of exposure. Wash off remaining material with plenty of water. In the event of any complaints or symptoms, avoid further exposure. Consult a doctor.
- <u>Skin contact:</u> Remove contaminated clothing and shoes. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. Obtain medical attention if irritation persists.
- <u>Eye contact:</u> Flush eyes with clean water for at least 15 to 20 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. Obtain medical attention if irritation persists.
- <u>Inhalation:</u> Remove person from contaminated area to fresh air and assist breathing as needed. Seek medical attention if irritation occurs.
- <u>Ingestion:</u> **Seek medical attention** or call a poison control center for treatment advice. Do not induce vomiting unless instructed to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person. If the person is alert, rinse mouth thoroughly with water.

## **RESISTANCE WARNING**

**ACEPHATE 750 SP** is a group code 1B insecticide. Any insect population may contain individuals naturally resistant to **ACEPHATE 750 SP** and other group code 1B insecticide. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **ACEPHATE 750 SP** or any other group code 1B insecticide.

To delay insecticide resistance:

- avoid exclusive repeated use of insecticides from the same insecticide group code. Alternate or tank
  mix with products from different insecticide group codes,
- integrate other control methods (chemical, cultural, biological) into insect control programmes.

For specific information on resistance management contact the registration holder of this product.

## Mode of action:

**Acephate** is a phosphoramidate compound and belongs to IRAC mode of action group 1B. It is a systemic insecticide with contact and ingestion activity, but with limited translocation. It is converted to methamidophos by insects which is a more potent and highly mobile insecticide. It inhibits the acetylcholinesterase through a covalent reaction with the enzyme at the acetylcholine binding site.

## **DIRECTIONS FOR USE:** Use only as directed.

# Compatibility:

**ACEPHATE 750 SP** should be tested on a small scale when mixed with other pesticides, to ensure that it is safe to the crop.

### Mixing instructions:

- Half fill the spray tank with water and add the required amount of ACEPHATE 750 SP to the water, while agitating.
- Ensure that all the lumps have dissolved before adding the rest of the water.
- Maintain agitation during mixing and application.

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### General directions:

Use at all times correctly calibrated and suitable equipment in good working conditions, to ensure wetting of all parts of the plant thoroughly.

## Aerial application:

Aerial application of **ACEPHATE 750 SP** may only be done by a registered aerial application operator using a correctly calibrated, registered aircraft according to the instructions of SANS Code 10118 (Aerial Application of Agricultural Pesticides). Ensure that the spray mixture is distributed evenly over the target area and that the loss of spray material during application is restricted to a minimum. It is therefore essential that the following criteria be met:

- <u>Volume</u>: A spray mixture volume of 30 litres per hectare is recommended. As this product has not been evaluated at a reduced volume rate, the registration holder cannot guarantee efficacy, or be held responsible for any adverse effects if this product is applied aerially at a lower volume rate than recommended above.
- <u>Droplet coverage</u>: 25 to 35 droplets per cm² must be recovered at the target area.
- <u>Droplet size</u>: A droplet spectrum with a VMD of 280 to 300 micron is recommended. Limit the production of fine droplets less than 150 micron (high drift and evaporation potential) to a minimum.
- <u>Flying height</u>: Maintain the height of the spray boom at 3 to 4 metres above the target. Do not spray when aircraft dives, is in a climb or when banking.
- Use suitable <u>atomizing equipment</u> that will produce the desired droplet size and coverage, but which will ensure the minimum loss of product. The spraying system must produce a droplet spectrum with the lowest possible Relative Span.
- Position all the atomizers within the inner 60 to 75 % of the wingspan to prevent droplets from entering the <u>wingtip vortices</u>.
- The difference in <u>temperature</u> between the wet and dry bulb thermometers, of a whirling hygrometer, should not exceed 8°C.
- Stop spraying if the wind speed exceeds 15 km per hour.
- Stop spraying under turbulent, unstable and dry conditions during the heat of the day.
- Spraying under temperature <u>inversion conditions</u> (spraying in or above the inversion layer) and/or <u>high humidity conditions</u> (relative humidity 80 % and above) may lead to the following:
  - a) reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage),
  - b) damage to other sensitive crops and/or non-target areas through drifting of the suspended spray cloud away from the target field.
- Ensure that the aerial spray operator knows exactly which fields to spray.

Obtain an assurance from the aerial spray operator that the above requirements will be met, and that relevant data will be compiled in a logbook and kept for future reference.

#### **APPLICATION RATES**

Crop / Pest	Dosage Rate	Remarks
Avocados Sucking bug complex	75 g / 100 ℓ water (7.5 g / 10 ℓ water)	Ground application Apply as a light cover spray ensuring thorough coverage of all the foliage. Commence spraying at 80 % fruit set on the shaded side of the tree.  Do not apply more than one (1) application per season.  Do not apply during blossom, as it is toxic to bees.
	1.687 kg / ha	Aerial application Apply in 30 litres water per hectare.

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Crop / Pest	Dosage Rate	Remarks
Apples and Pears Codling moth	50 g / 100 ℓ water (5 g / 10 ℓ water)	Apply as a full cover spray at 75 % petal fall and repeat 14 days later.  Do not apply more than two sprays per season. The last spray must be applied before the end of November.
African bollworm	50 g / 100 ℓ water (5 g / 10 ℓ water)	Apply as a full cover spray and repeat if necessary. <b>Do not</b> apply more than two (2) sprays per season. The last spray must be applied before the end of November.
Banded fruit weevil (Snout beetle)	50 g / 100 ℓ water (5 g / 10 ℓ water)	Apply as a full cover spray between 3/4 petal drop and at the end of November. Sprays should be repeated after 14 days. <b>Do not</b> apply more than two (2) sprays per season.
Leafroller, Antestia bug & Fruit nibbler	50 g / 100 ℓ water (5 g / 10 ℓ water)	Application sprayed for the control of Codling moth, Snout beetle and African bollworm will also control leafroller, Antestia and Fruit nibbler present at application. <b>Do not</b> apply more than two (2) sprays. The last spray must be applied before the end of November.
Cruciferae Diamond back moth larvae	350 to 500 g / ha (7 to 10 g / 10 ℓ water)	Apply as a full cover spray when the pest is noticed. Ensure complete coverage of plants, especially the underside of leaves. The addition of a wetting agent is recommended. Repeat every 7 to 10 days.  Lower rate should be repeated every 7 days and the higher rate is recommended for the first application.
Tree Nuts (Almonds, Cashews, Chestnuts, Hazelnuts, Macadamia nuts,	Resistance management:	
Pecans, Pistachio nuts, Walnuts, Coconut, Brazil nuts and Pine nuts)	75 g / 100 ℓ water (7.5 g / 10 ℓ water)	Apply as a medium to full cover spray as soon as the pest is noticed but only after flowering. Apply at 4 to 6-week intervals in a foliar spray programme.
Stinkbug complex Two-spotted stinkbug (Bathycoelia natalicola)	1.75 kg/ha	Aerial application: Apply in 50 litres of water per hectare.
Plums African bollworm, Antestia bug, Fruit nibbler, Banded fruit weevil (Snout beetle), Leafroller & Codling moth	50 g / 100 ℓ water (5 g / 10 ℓ water)	Western Cape only: Apply as a full cover spray, to ensure thorough wetting and repeat as necessary. Do not apply more than two (2) sprays per season. Do not apply during blossom, as it is toxic to bees. Do not spray after petal fall.

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Crop / Pest	Dosage Rate	Remarks
Peaches		Western Cape only:
Dessert and Canning	25 g / 100 ℓ water	Apply as a full cover spray when pest is noticed and repeat as
Aphids	(2.5 g / 10 ℓ water)	necessary.
		<b>Do not</b> apply more than two (2) sprays per season.
	High Volume:	If applications coincide with the Oriental fruit moth day degree
	0.38 to 0.63 kg/ha	model, Oriental fruit moth may be suppressed but not
		controlled.
Antestia bug, Codling	50 g / 100 <i>ℓ</i> water	Western Cape only:
moth, Fruit nibbler &	(5 g / 10 ℓ water)	Apply as a full cover spray when the pest is noticed and repeat
Banded fruit weevil		as necessary.
(Snout beetle)	<u>High Volume:</u>	<b>Do not</b> apply more than two (2) sprays per season.
	1.25 to 1.75 kg / ha	Do not apply during blossom, as it is toxic to bees.
		Do not spray after petal fall.
	Low Volume:	Will also control African bollworm and fruit nibbler.
Λ f.:     -	1.0 to 1.4 kg / ha	
African bollworm	50 g / 100 ℓ water	
	(5 g / 10 ℓ water)	Western Cape only:
		Apply at 75 % petal fall and repeat 14 days later.
	High Volume:	Do not apply more than two (2) sprays per season.
	1.25 to 1.75 kg / ha	Do not apply during blossom, as it is toxic to bees.  Will also control codling moth, Antestia bug, Fruit nibbler and
	Low Volume	Weevils.
	<u>Low Volume:</u> 1.0 to 1.4 kg / ha	vveeviis.
Table and	50 to 75 g / 100 ℓ	
Wine Grapes	water	
Weevil (Snout beetle)	(5 to 7.5 g / 10 ℓ	Apply as a full cover spray at 250 to 1500 litres spray mixture
,	water)	per hectare, as soon as the pest is noticed.
	,	Use the higher dosage rate in cases of severe infestation.
	High Volume:	Repeat 7 to 14 days later if necessary.
	0.13 to 1.1 kg / ha	
Potatoes		Apply as a full cover spray in 200 to 500 litres water per
Potato tuber moth	500 g / ha	hectare, depending on plant size.
	(10 to 25 g / 10 ℓ	Start application when plants are one (1) month old and repeat
	water)	every 7 to 14 days if necessary.
	water)	This programme will also control Aphids. Ridge at least twice
		during the season.
Aphids		Apply at first sign of infestation and repeat every 7 days.
	E00 to 750 ~ / b =	When the Aphid infestation is high, use the higher rate to
	500 to 750 g / ha	ensure initial control.
	(10 to 37.5 g / 100 ℓ	
	water)	hectare, depending on plant size. Aerial application:
		Apply in 30 litres of water per hectare.
		Apply in 30 littles of water per nectare.

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Crop / Pest	Dosage Rate	Remarks
Tobacco African bollworm & Leaf miner	200 g / 100 ℓ water (20 g / 10 ℓ water)	Ground application: Apply as a full cover spray. Where a heavy infestation occurs, a second application is recommended 7 days later. Repeat if necessary. Ensure thorough coverage of all leaves.
African bollworm	1000 g / ha	<ul> <li>Aerial application (also follow the instructions under "DIRECTIONS FOR USE"):</li> <li>1. Apply only when larvae are smaller than 12.5 mm.</li> <li>2. Repeat application after 7 days, if necessary repeat application again.</li> <li>3. Application must preferably be performed in the morning before the larvae migrate to the lower leaves.</li> <li>4. Application to high-density tobacco is not recommended.</li> </ul>
Slug	200 g / 100 ℓ water (20 g / 10 ℓ water)	Apply as a full cover spray and repeat application every 7 days up to 14 days before harvest.  When a heavy infestation occurs, apply 400 g ACEPHATE 750 SP per 100 litres water as a full cover spray and re-apply 200 g ACEPHATE 750 SP per 100 litres water, 7 days later.
Cutworm	165 g / 100 ℓ water (16.5 g / 10 ℓ water)	Ground application: Pour 30 mℓ of the solution over each young plant. Repeat if necessary.
Green aphid ( <i>Myzus persicae</i> )	200 g / 100 ℓ water (20 g/ 10 ℓ water)	Apply as a full cover spray and ensure thorough coverage of all leaves.  Where a heavy infestation occurs, a second application is recommended 7 days after the first application, to obtain good initial control.  Repeat application if necessary, every 7 days.
Tobacco Seedbeds Cutworm & Leaf eating insects	1 g / m²	<ul> <li>Ground application:</li> <li>1) Spray: Mix 200 g ACEPHATE 750 SP per 100 litres water and use a coarse spray at the rate of 500 mℓ solution per m² every 7 days, to get good run-off onto the soil.</li> </ul>
	19/	OR  2) Drench: Mix 65 g ACEPHATE 750 SP per 100 litres water and use a watering can to apply 1.5 litres solution per m <sup>2</sup> , every 7 days.
Tomatoes African bollworm	75 to 100 g / 100 ℓ water (7.5 to 10 g / 10 ℓ water)	Apply a minimum of 1000 litres spray mixture per hectare and increase this spray volume to a maximum of 2000 litres per hectare, according to plant size.  Ensure thorough coverage of plants.  Commence spraying at flowering and repeat application every 7 days, if pest remains active.  Use the higher rate as a first treatment, when infestation is present. Repeat application after rain.
Thrips	100 g / 100 ℓ water (10 g / 10 ℓ water)	Apply as a full cover spray and ensure thorough coverage of plants.  Where a heavy infestation occurs, a second application is recommended 7 to 10 days after first application to obtain good initial control.  If necessary, repeat application every 7 to 10 days.

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