

SHELF LIFE:

Two years from date of manufacture (see side of container) if stored in a cool, dry place in original, sealed container.

PRECAUTIONS:

1. Handle with care. Avoid splashing/contact. Poisonous by swallowing, inhalation and contact with the skin.
 2. Irritating to eyes and skin and causes sensitisation by skin contact
 3. **WEAR FULL PROTECTIVE CLOTHING** i.e. rubber gloves, rubber boots, overalls, hood and respirator when handling this pesticide.
 4. **DO NOT** eat, drink or smoke while applying this insecticide.
 5. DANGEROUS TO ANIMALS, FISH, BEES AND BIRDS.
 6. Remove protective clothing on completion of spraying and wash hands and face thoroughly with soap and water.
 7. **DO NOT** CONTAMINATE DRINKING POOLS, DAMS, RIVERS AND WATERWAYS.
 8. DANGEROUS TO LIVESTOCK AND DOMESTIC PETS.
 9. KEEP OUT OF REACH OF CHILDREN.
 10. KEEP APART FROM FOOD AND FOODSTUFFS.
 11. Store in original container and KEEP UNDER LOCK AND KEY.
 12. Destroy empty container – DO NOT use for any other purpose.
- #### EMPTY CONTAINER DISPOSAL:
13. Invert the empty container over the spray or mixing tank and allow to drain for at least 30 seconds after the flow has slowed down to a drip. Thereafter rinse the container three times with a volume of water equal to a minimum of 10 % of that of the container. Add the rinsings to the contents of the spray tank before destroying the container in the prescribed manner.
 14. Destroy empty container by perforation and flattening and bury away from water courses.

After accidental skin contact, **DO NOT** start flushing with water. Wipe off with dry cloth or using talcum powder then wash with soap and water and apply fatty oil or cream.

VANTEX 60 CS

INSECTICIDE

REG No: 17-D-209-1

Contents: 1 Litre



HARMFUL IF SWALLOWED

COMPOSITION: (mass / volume)

gamma-cyhalothrin	60 g / litre
solvents, emulsifiers	940 g / litre

Chemical Group: Synthetic Pyrethroid

Vantex 60 SC is a synthetic pyrethoid insecticide effective against a range of insect pests on cruciferae, dry beans, green beans, groundnuts, macadamia, maize, sweetcorn, lucerne, onions, peas, potatoes, soyabeans, tomatoes, sorghum, sweetcorn and wheat.

TO CAUSE A HAZARD IN THE USE, STORAGE OR DISPOSAL OF THIS SUBSTANCE IS AN OFFENCE

Contents:

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FMC

Cheminova A/S, Thyborønvej 78, DK-7673 Harboøre, www.cheminova.dk

SYMPTOMS OF POISONING:

Gamma-cyhalothrin can cause feelings of burning, tingling or numbness in exposed areas (paraesthesia)

FIRST AID:

General: If any sign of poisoning occurs, call a doctor (physician), clinic or hospital immediately. Explain that the victim has been exposed to a pyrethroid insecticide. Describe his/her condition and the extent of exposure. Immediately remove the exposed person from the area where the product is present. As soon as a feeling of tingling is noted in any skin area, it is recommended to immediately apply a vitamin E cream. For this purpose vitamin E cream should be available at the workplace.

If in eyes: Immediately rinse eyes with much water or eyewash solution, occasionally opening eyelids, until no evidence of chemical remains. Remove contact lenses after a few minutes and rinse again. See physician immediately.

If on skin: Immediately remove contaminated clothing and footwear. **DO NOT** start with flushing with water, but wipe off with dry cloth or using talcum powder, followed by washing with water and soap. Thereafter apply vitamin E cream or fatty skin care oil or cream. See physician if contamination is severe or if feeling unwell.

If swallowed: Let the exposed person rinse mouth and let him/her drink several glasses of water (not milk or cream or other substance containing fats, which may enhance absorption), but **DO NOT** induce vomiting. If vomiting does occur, let him/her rinse mouth and drink fluids again. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Registered by: **Pivotal Agro-Services P/L**
P O Box WGT 450, Westgate, Harare
Telephone 309800 / 25
Manufactured by: **FMC Corporation**



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If inhaled: If experiencing any discomfort, immediately remove from exposure. Light cases: Keep person under surveillance. Get medical attention immediately if symptoms develop. Serious cases: Get medical attention immediately or call for an ambulance. If breathing has stopped, immediately start artificial respiration and maintain until a physician takes charge of the exposed person.

NOTE TO PHYSICIAN:

There is no specific antidote against this substance. Gastric lavage and administration of activated charcoal can be considered. After decontamination, treatment is symptomatic and supportive as indicated. Normally recovery is spontaneous.

WARNINGS:

Withholding periods: Minimum number of days between last application and harvest or feeding/grazing:

Lucerne (grazing)	8 days
Macadamias	14 days
Wheat, soybeans, and sorghum	28 days
Apples, apricots, nectarines, pears, table peaches and plums	14 days
Dry beans, maize and sweetcorn	7 days
Tomatoes, cruciferae and lupins (grazing)	2 days
Canning peaches, potatoes, peas and onions	3 days
Green beans	1 day
Wheat, soybeans, sorghum and maize (grazing)	28 days

*Warning against resistance:

DO NOT apply more than two applications per growing season. If a pyrethroid gives poor performance **DO NOT** respray with any synthetic pyrethroid, even at a corrective dosage rate. Use a product from a different chemical group.

For resistance management, VANTEX 60 CS is a group code 3A insecticide. Any insect population may contain individuals naturally resistant to VANTEX 60 CS and other group code 3A insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by VANTEX 60 CS or any other group code 3A 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 the control methods (chemical, cultural, biological) into insect control programmes.

Re-entry interval: DO NOT enter treated field until spray deposit has dried unless wearing protective clothing.

Aerial application: Notify all inhabitants in the immediate vicinity of the area to be treated and issue the necessary warnings.

DO NOT spray over or allow drift to contaminate water or adjacent areas.

WARRANTY:

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 furthermore 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 the event of any uncertainty.

DIRECTIONS FOR USE: Use only as indicated

Mixing instructions:

Half fill the spray tank with clean water. Measure out the required quantity of VANTEX 60 CS and pre-mix this with at least 10 liters water. Add this to the spray tank while agitating the mixture. Fill the spray tank while maintaining agitation to ensure thorough mixing of the spray mixture before spraying commences. Maintain agitation during the whole spraying operation.

GROUND APPLICATION:

It is necessary to fit equipment with hollow cone nozzles that give medium to fine droplets when using a conventional high volume sprayer. Calibrate the equipment before use and ensure correct application. The spray mixture must be evenly distributed over the target area. All spray applications must be made with suitable equipment that is in good working order and correctly calibrated to give the desired coverage for that particular method of application.

AERIAL APPLICATION:

Aerial application of VANTEX 60 CS may only be done by a registered aerial application operator using a registered and correctly calibrated 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;

- Volume: 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.
- Droplet coverage: 30 to 40 droplets per cm² must be recovered at the target area.
- Droplet size: A droplet spectrum with a VMD of 250 to 280 microns is recommended. Limit the production of fine droplets less than 150 microns (high drift and evaporation potential) to a minimum.
- Flying height: 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 atomizing equipment 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 wingtip vortices.
- The difference in temperature 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/h.
- Stop spraying under turbulent, unstable and dry conditions during the heat of the day.
- Spraying under temperature inversion conditions (spraying in or above the inversion layer) and/or high humidity conditions (relative humidity 80 % and above) may lead to the following:
 - reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage),
 - 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.

Prepared spray mixture must not be left in the spray tank for any length of time e.g. overnight. The addition of molasses has an acidifying effect and reduces evaporation of the spray mist. For ground application add 10 % molasses by volume and 20 % for aerial application.

APPLICATION RATES:

CROP	ml / 100l water	Dosage / Ha or as indicated	Remarks
TOMATO Bollworm (<i>Helicoverpa armigera</i>) Semi-looper (<i>Chrysodeixis acuta</i>)	3.5 ml/100 l water		Ground application: Apply as a full cover spray at the first signs of infestation. Repeat the application at 7 - 10 day intervals or as directed by inspection of the crop. Apply 500 - 1 000 L spray mixture / ha. Use lower spray volume of 500 L / ha for plants smaller than 1 m and higher spray volume for taller plants.
POTATO Tuber moth larvae (<i>Phthorimaea operculella</i>) Bollworm (<i>Helicoverpa armigera</i>)		50 ml / ha	Ground application: Apply in 250 – 500 l water / ha depending on plant size. Start spraying when plants are one month old or earlier if an infestation should occur. Apply every 10 - 14 days and ridge at least twice during the growing season.
		55 ml / ha	Aerial application: Apply in at least 30 l water / ha. Start spraying as soon as plants are one month old or earlier if an infestation should occur. Repeat application every 10 – 14 days and ridge at least twice during the growing season. See "Warnings" - warning against resistance.
DRY BEANS, GROUNDNUTS, GREEN BEANS Bollworm (<i>Helicoverpa armigera</i>)		42 ml / ha	Commence application as soon as eggs or larvae are noticed on plants. Repeat the application at 14 day intervals or as directed by inspection of the crop.
		42 ml / ha	Ground application: Apply in 250 – 500 l water / ha depending on plant size. Scout fields at 7 day intervals from time of flowering and start spraying when infestation is noticed. Larvae should not be larger than 1 cm in length for optimum control. Scout field every 7 days or 3 days after rain. Repeat application if necessary.
SOYBEANS Bollworm (<i>Helicoverpa armigera</i>)		50 ml / ha	Aerial application: Apply in 30 l water / ha. See "Warnings" - warning against resistance.
		50 ml / ha	Ground application: Ensure good coverage of the plants by applying in 200 – 300 l water / ha. Start application as soon as an infestation is noticed and repeat as necessary.
			Aerial application: Apply in 30 l water / ha. Start application as soon as infestation is noticed and repeat as necessary. See "Warnings" - warning against resistance.

CROP	ml / 100l water	Dosage / Ha or as indicated	Remarks
PEAS (including MANGE TOUT) Bollworm (<i>Helicoverpa armigera</i>)		42 ml / ha	Ground application: Apply in not less than 200 l water / ha. Start application at flowering when the infestation of bollworm larvae is at 2 bollworms / 20 plants. If a re-infestation occurs, a follow up application may be necessary.
		50 ml / ha	Pivot application: Start application when the infestation of bollworm eggs are at a level of 6 eggs / 24 plants or the larvae at 2 larvae / 24 plants. A correctly calibrated injector on the pivot line must be used. Pivot speed to be at 100 %. See "Warnings" warning against resistance.
CRUCIFERAE Bollworm (<i>Helicoverpa armigera</i>) and Caterpillars of the Diamond back moth (<i>Plutella xylostella</i>)	3,5ml / 100 l water		Ensure good wetting of the plant by adding a wetting agent. Commence spraying at the first signs of the pest and repeat sprays at 10 - 14 day intervals. Apply 500 - 1000 l spray mixture / ha. See "Warnings" - warning against resistance.
MAIZE, SWEETCORN, LUCERNE Bollworm (<i>Helicoverpa armigera</i>) Pink stalk borer (<i>Sesamia calamistis</i>)		42 ml / ha	Ground application: Apply in 250 – 500 l water / ha depending on plant size. Scout fields at 7 day intervals from time of flowering and start spraying when infestation is noticed. Larvae should not be larger than 1 cm in length. Scout every 3 days after rain and spray if necessary. See "Warnings" - Warning against resistance.
		0.4 ml / 100 m row	Ground application: Sweetcorn: Apply directly into funnel. Start spraying 2 weeks after planting and repeat at 10 - 14 day intervals until the ears appear. Use in not less than 3 l water / 100 m row.

CROP	ml / 100l water	Dosage / Ha or as indicated	Remarks
MAIZE Maize stalk borer (<i>Busseola fusca</i>) (First and second generation) Chilo stalk borer (<i>Chilo partellus</i>) Fall Armyworm (<i>Spodoptera frugiperda</i>)		0.5 ml / 100 m row Or 50 ml / ha 50 ml / ha 0.5 ml / 100 m row	Treat before larvae enter stalks. Apply up to the stage when tassels are enclosed by the flag leaf. Ground application: The first application must be made when 10 % of the plants show shot-hole damage. Apply in 3 l water / 100 m row. The spray must be directed into the funnel. When larvae are longer than 10 mm or a re-infestation occurs a second application may be necessary within 10 - 12 days after the first application. Aerial application: Apply in 30 l water / ha as an early corrective application when 10 % of the plants show shot-hole damage. When larvae are longer than 10 mm or a re-infestation occurs a second application may be necessary within 10 - 12 days after the first application. Ground application: See remarks for stalk borer control above.
ONIONS Thrips (<i>Thrips tabaci</i>)		33 – 50 ml / ha	Start applying when the first signs of damage are noticed on the leaves. Apply in a spray programme every 10 - 14 days. The lower dosage rate can be used if thrip counts are below 0,6 thrips per plant (6 per 10 plants). Follow up applications with higher dosage rate 10 - 14 days later. DO NOT use on spring onions.
SORGHUM American (African) bollworm (<i>Helicoverpa armigera</i>) Stalk borer (<i>Busseola fusca</i>)		42 ml / ha 42 ml / ha 0.4 ml / 100 m row 42 ml / ha	Ground application: Direct application onto ears. Apply in 300 – 500l water / ha. Start application as soon as infestation is present. Follow up if necessary. Aerial application: Apply in 30 l water / ha. Apply when pest is noticed. If bollworm are concealed in the ear, control may be less effective. Later infestations may require a second application. See "Warnings" - warning against resistance. Ground application: Apply in funnel when 5 % of plants show shot-hole damage and larvae have not yet entered stalks. Apply in 3 l water/100 m and direct spray into the funnel. Will also control <i>Chilo partellus</i> if present at time of application. Aerial application: Apply in 30 l water / ha.

CROP	ml / 100l water	Dosage / Ha or as indicated	Remarks
ALL CROPS Cutworm (<i>Agrotis spp.</i>)		0.1 ml / 100 m row 30 ml / ha 30 ml / ha 0.1 ml / 100 m row 30 ml / ha	Soil must be well-prepared - free of clods and excessive plant debris. Apply pre- or post-emergence. Apply ONLY if the top 3 cm of soil is moist. Where high cutworm populations is expected (minimum tillage), monitor infestations for follow-up applications. Preventive application (pre-emergence): Ground application: Row treatment: Apply in at least 3 l water / 100 m in a 30 cm wide band over row. Overall application: Apply in 300 l water/ha. Aerial application: Apply in 30 l water / ha. Corrective application (post-emergence): Ground application: Row treatment: Apply in at least 3 l water / 100 m in a 30 cm wide band over the row. Overall application: Apply in 300l water/ ha. Aerial application: Apply in 30 l water / ha.
MACADAMIA Stink bug (<i>Nezara viridula</i>)	4,2 ml / 100 l water		Apply as high volume full cover spray. Application timing is based on stinkbug numbers. Scouting for stinkbug is done according to the tree shake method. Start monitoring stinkbug numbers two weeks after flowering. Apply when average of 1.8 stinkbugs are counted per tree (18 per 10 trees). Two to three applications may be necessary per season.
WHEAT American (African) bollworm (<i>Helicoverpa armigera</i>)		42 ml / ha	Apply as a full cover spray as soon as pest appears and ensure adequate wetting of ears. Repeat after 10 - 14 days depending on level of infestation. Ground and aerial application in 250 – 500 l and 30 l water / ha respectively. See warning against resistance under "Warnings" above.

**FOR FURTHER INFORMATION ON THIS PRODUCT,
TELEPHONE HARARE 04 - 309825**