

# HARVEST CHLORPYRIFOS 480 EC

Distributed by: Harvest Chemicals  
Registration Holder/Registrasiehouer Harvest Crop Solutions (Pty)Ltd.  
Reg.No. 2014/187205/07  
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**Poison Helpline: 085 155 5777**

**IMPORTANT: READ THE ATTACHED LEAFLET BEFORE USE OR OPENING**  
**BELANGRIK: LEES AANGEHEGTE PAMFLET VOOR GEBRUIK OF OOPMAAK**

## HARVEST CHEMICALS



**HARVEST CHLORPYRIFOS 480 EC**  
is an emulsifiable concentrate contact insecticide for the preventive and corrective control of pests on various crops as listed.

**HARVEST CHLORPYRIFOS 480 EC**  
is 'n emulgeerbare konsentraat insekdoder vir die voorkomende en korrektiewe beheer van plae op verskeie gewasse soos aangedui.

VN Nr.: 3017

Batch No	Reg. No. L10929, Act No 36 of 1947.	Reg Nr L10929, Wet Nr. 36 van 1947	Lot Nr
<input type="text"/>	<b>INSECTICIDE GROUP CODE</b>	<b>1B</b>	<b>INSEKDODER GROEP KODE</b>
<input type="text"/>	<b>Active Ingredient:</b> Chlorpyrifos 480 g / ℓ	<b>480g/ℓ</b>	<b>Aktiewe Bestandeel:</b> Chlorpirifos 480 g / ℓ
Date of manufacture	<b>Nett Volume</b>	<b>5 ℓ</b>	<b>Vervaardigingsdatum</b>
<input type="text"/>	<b>Netto Volume</b>	<input type="text"/>	<input type="text"/>



### WARNINGS

- Withholding periods – Minimum time between last application and harvest or feeding:

<b>Deciduous Fruit</b> (apples, apricots, peaches, pears, plumbs).....	30 days
<b>Lettuce</b> .....	21 days
<b>Maize</b> .....	32 days
<b>Wheat</b> .....	32 days
<b>Wine grapes</b> .....	28 days

- Handle with care.
- Poisonous when absorbed through the skin, swallowed or inhaled.
- Toxic to fish, bees and wildlife.
- FLAMMABLE:** Do not store near open flames.
- Store in a cool place.
- Store away from food and feedstuffs.
- Keep out of reach of children, uninformed persons and animals.
- Re-entry period:** Do not enter treated fields / orchards within 1 day after application unless wearing protective clothing.
- In case of poisoning, call a doctor immediately and make this label available to him/her.**
- AERIAL APPLICATION:** Notify all inhabitants of the immediate area to be sprayed and issue the necessary warnings. Do not spray 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, since 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 a pest against 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 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.

## **PRECAUTIONS:**

- Avoid inhalation of spray mist.
- Wear protective clothing whilst mixing and applying protective gloves and face shield.
- Wash with soap and water after use or accidental skin contact.
- Do not eat, drink or smoke while mixing and applying or before washing hands and face.
- Avoid spray drift onto other crops, grazing, rivers and dams.
- Clean applicators before using for other remedies and dispose of wash water where it will not contaminate crops, grazing, rivers and dams.
- Invert the empty container 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 by perforation, flattening and burying and do not use for any other purpose.
- Avoid contamination of food, feedstuffs, drinking water and eating utensils.

## **SYMPTOMS OF HUMAN POISONING**

Headaches, fatigue, faintness, giddiness, excessive sweating, nausea, abdominal pains, vomiting, diarrhoea, tightness of chest, anxiety, blurred vision, muscle twitching beginning in eyelids and tongue, usually small pupils, respiratory distress, convulsions, coma.

## **FIRST AID TREATMENT**

### **Ingestion**

Do not induce vomiting. Call a physician and/or transport to emergency facility immediately. The decision of whether to induce vomiting or not should be made by an attending physician. Never give fluids or induce vomiting if patient is unconscious or is having convulsions.

### **Eye contact**

Irrigate immediately with water for at least 5 minutes. Consult medical personnel.

### **Skin contact**

Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Wash contaminated clothing before re-use.

### **Inhalation**

Remove to fresh air. Consult a physician.

**Skin contact:** Wash off immediately with soap and plenty of water and call a physician.

**Eye contact:** In case of contact with eyes, rinse thoroughly with water and call a physician immediately.

**Ingestion:** **DO NOT** induce vomiting. Wash out mouth with water. **CALL A PHYSICIAN IMMEDIATELY.**

## **NOTE TO PHYSICIAN:**

This material contains both a cholinesterase inhibitor and a solvent. Atropine, only by injection, is the preferable antidote. Oximes, such as 2-PAM/protopam, may be therapeutic if used early; however, use only in conjunction with atropine. If lavage is performed, suggest end tracheal and/or oesophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Supportive care. Treatment based on judgement of physician in response to symptoms of patient.

## **RESISTANCE WARNING:**

For resistance management, **HARVEST CHLORPYRIFOS 480 EC** is a group 1 B insecticide. Any insect population may contain individuals naturally resistant to **HARVEST CHLORPYRIFOS 480 EC** and other group 1 B insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **HARVEST CHLORPYRIFOS 480 EC** or any other group 1 B insecticide.

To delay insecticide resistance:

- Avoid exclusive repeated use of insecticides from the same insecticide group codes.
- Do not use insecticides at lower rates than prescribed on label.
- Where possible target applications against early larval or egg stages of applicable pest.
- Integrate other control methods (chemical, cultural, biological) into insect control programmes.

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

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

**POISONS HELPLINE: 0861 555 777**

## **AERIAL APPLICATION**

Aerial application of **HARVEST CHLORPYRIFOS 480 EC** may only be done by a registered aerial application operator using a registered and correctly calibrated aircraft according to the instructions of SANS 1018 (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 l 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 cm<sup>2</sup> 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.

**COMPATIBILITY**

**HARVEST CHLORPYRIFOS 480 EC** is compatible with light-narrow range mineral oil, dimethoate (400 g / ℓ EC) lapsed.

**APPLICATION**

Dosage rates indicated per 100 litres water are for high volume spraying.

CROP/ PEST	DOSAGE RATE / 100ℓ water or as per indicated	REMARKS
<b>APPLES AND PEARS</b> Mealy bug	100 - 200 mℓ + 500 mℓ medium range mineral oil	<b>Dormant application only.</b> <b>Mealy bug:</b> Apply at least two high volume sprays. First spray approximately 3 – 4 weeks before bud swell / green tip. Second spray at bud swell / green tip. Use higher dose rate where more than 1% fruit infestation was experienced the previous season. <b>HARVEST CHLORPYRIFOS 480 EC</b> is compatible with mineral oil or mineral + cyanamide used against delayed foliation. <b>Note: When HARVEST CHLORPYRIFOS 480 EC is applied in combination with restbreak oil, the addition of medium range mineral oil is not necessary.</b>
<b>LETTUCE</b> Cutworm	1 ℓ / ha	Apply as an overall application when plants emerge. Repeat application every 7 – 14 days when necessary. Apply in at least 500 ℓ water.
<b>MAIZE</b> Stalkborer	3,5 mℓ / 100 m row length in 3 ℓ water	<b>Ground application: Early planting</b> – Apply when 5 % of the plants are infested with eggs or when 10 % plants show “shot hole” damage. If control of this infestation is delayed too long, the larvae may be protected inside the stalk and poor results can be expected. <b>Late planting:</b> Apply the first spray 30 – 35 days after planting and repeat 14 days later.  Only apply up to the stage before the tassels are enclosed by the flag leaf.
<b>PEACHES, PLUMS AND APRICOTS</b> Pernicious scale (White Peach Scale)	100 mℓ + 500 mℓ medium range spray mineral oil	<b>Dormant application only.</b> Apply at least two high volume sprays at 4 – 6 week intervals during the dormant stage of trees. (One before and one after pruning at bud swell.) Use the lower dose rate as maintenance and higher dose rate where infestation of Pernicious scale and/or White Peach Scale was observed the previous seasons. <b>Note: When HARVEST CHLORPYRIFOS 480 EC is applied in combination with restbreak oil, the addition of medium range mineral oil is not necessary.</b>
<b>WHEAT</b> Russian Wheat aphid (Diuraphis noxia)	750 – 1 000 mℓ / ha	<b>Ground application:</b> Apply as an overall spray when first signs of infestation are observed. Repeat spray 8 – 10 days later, if necessary. Apply in 200 – 300 ℓ water / ha depending on size of plants. In the event of high aphid populations, apply 1,0 ℓ / ha when first signs of infestation are observed. Repeat spray 8 – 10 days later, if necessary, using a lower dosage rate of 750 mℓ / ha.  <b>Aerial application:</b> Using 1 ℓ / ha start spraying when first signs of infestation are observed. Repeat spray 8 – 10 days later, if necessary, using a lower dosage rate of 750 mℓ / ha. Apply in not less than 30 ℓ water / ha. <b>Note:</b> These applications will also control other aphid species if present and suppress black maize beetle.
<b>WINE GRAPES</b> Mealy bug (low infestation pressure)	100 mℓ (two applications)	<b>Dormant Spray only:</b> Apply two applications at two week intervals before bud burst. Apply as a height volume application to ensure optimum coverage of the vines.
Mealy bug (high infestation pressure)	200 mℓ (two applications)	<b>Note:</b> This application will also control cocktail ants and suppress Argentine ants if present at application (at lower dosage suppression only).
Mealy bug and suppression of Argentine ants	75 mℓ (36 g ai/100 ℓ)	<b>Summer spray only:</b> <b>Mealy Bug:</b> Apply when the first movement of mealy bug is noticed. Apply as a high volume application ensuring thorough coverage of the vines. Repeat after 21 days if necessary.  <b>Do not apply during bud swell or within 4 weeks after bud-bud as HARVEST CHLORPYRIFOS 480 EC can be phytotoxic to young vine leaves.</b>