

BEFORE USING THIS PRODUCT READ THE LABEL CAREFULLY!

Herbicide



**RADICAL 250 EC**

Reg. No. L 9159 Act/Wet No. 36 of/van 1947

7:26/11/2013-June2017

*An emulsifiable concentrate pre-emergence herbicide for the control of weeds in sunflowers as indicated.*

*'n Emulgeerbare konsentraat onkruidodder vir die beheer van onkruid in sonneblomme soos aangedui.*

**ACTIVE INGREDIENT / AKTIEWE BESTANDDEEL**

flurochloridone 250 g/l flurochloridoon

HRAC HERBICIDE GROUP CODE **F1** HRAC ONKRUIDDODER GROEPPKODE



**villa**

Registration holder / Registrasiehouer:  
Universal Crop Protection (Pty) Ltd.  
Co. Reg. No. / Mpy. Reg. Nr. 1983/008184/07  
PO Box / Posbus 801, Kempton Park, 1620  
Tel: 011 396 2233  
Website / Webblad: [www.villacrop.co.za](http://www.villacrop.co.za)

**UN Number: 2903**

Willow Set & Print 011 394-4486

GEBRUIKSAANWYSYNGS INGESLUIT

VERWYS NA BESONDERHEDE  
GEDRUK OP HOUER/SAK

Date formulated:  
Formuleringsdatum:

DIRECTIONS FOR USE ENCLOSED

REFER TO DETAILS PRINTED  
ON CONTAINER/BAG

Batch number:  
Lotnommer:



**CAUTION  
VERSIGTIG**



**RADICAL 250 EC**

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HRAC HERBICIDE GROUP CODE / HRAC ONKRUIDDODER GROEPKODE: F1

**ACTIVE INGREDIENT / AKTIEWE BESTANDEDEL:**

flurichloridone / flurochloridoon..... 250 g/l

Registration holder / Registrasiehouer:

**UNIVERSAL CROP PROTECTION (PTY) LTD.**

Co. Reg. No. 1983/008184/07 Mpy. Reg. Nr.

P.O. Box / Posbus 801

KEMPTON PARK, 1620 Tel. (011) 396 2233

**CAUTION / VERSIGTIG****WARNINGS**

- Harmful if swallowed or inhaled.
- Handle with care.
- May cause skin and eye irritation.
- Flammable.
- Toxic to fish and wildlife.
- Store under lock and key in a cool, dry place, away from food, feeds, seed and fertilizers.
- Keep out of reach of children, uninformed persons and animals.
- Re-entry: Do not enter treated area within 1 day after treatment unless wearing protective clothing.
- **In case of poisoning, take the patient immediately to a doctor and make this label available to him/her.**

**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 weeds against the remedy concerned, as well as 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.**

**PRECAUTIONS**

- Do not inhale the spray mist or fumes.
- Avoid eye and skin contact.
- Wear protective overalls, rubber gloves, gumboots and a face shield when the concentrate is handled and during mixing.
- Wash with soap and water after use and after accidental skin contact.
- Wash contaminated clothing after use.
- Do not eat, drink or smoke whilst mixing or applying the product or before washing hands and face and change of clothing.
- Prevent drift onto other crops, grazing, rivers, dams or areas not under treatment or to nearby water sources.
- Thoroughly clean the spraying equipment directly after use and dispose of wash water where it will not contaminate food, grazing, boreholes, rivers or dams.
- **TRIPLE RINSE** empty containers in the following manner: Invert the empty container over the spray or mixing tank and allow draining 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 a third of that of the container. Add the rinsing to the contents of the spray tank before destroying the container in the prescribed manner.
- Destroy the empty container by perforation and flattening and dispose of it in a safe way.
- **Never** re-use the empty container for any other purpose.
- Prevent contamination of food, feed, drinking water and eating utensils.

**SYMPTOMS OF POISONING**

Excessive sweating, fever and excitation. Is moderately irritating to the eyes and skin.

**FIRST AID TREATMENT**

- In case poisoning is suspected: Remove the patient from the source of poisoning to a well-ventilated area and keep him/her calm and at rest. **Call a physician immediately.** Keep the airway clear to maintain respiration, particularly when the patient is unconscious or has vomited. Do not apply direct mouth-to-mouth respiration.
- Skin contact: Remove contaminated clothing and wash the contaminated areas with plenty of soap and cold water. Do not rub the skin. **Get medical attention if irritation persists.**
- Eye contact: Immediately flush contaminated eyes for 15 minutes with clean cold water, while occasionally lifting upper and lower lids. **Seek medical advice if irritation persists.**
- Inhalation: If breathing difficulty or irritation occur and persist, obtain medical attention. Do not apply direct mouth-to-mouth respiration.
- Ingestion: **Seek medical advice immediately.** Have victim rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Treat respiratory difficulty with artificial respiration and oxygen. Administration of oxygen and lavage must be performed by qualified medical personnel.

**NOTE TO PHYSICIAN**

There is no specific antidote available. Treat symptomatically and provide supportive therapy.

**RESISTANCE WARNING**

**RADICAL 250 EC** is a group code F1 herbicide. Any weed population may contain individuals naturally resistant to **RADICAL 250 EC** and other group code F1 herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **RADICAL 250 EC** or any other group code F1 herbicides.

To delay herbicide resistance:

- avoid exclusive repeated use of herbicides from the same herbicide group code. Alternate or tank mix with products from different herbicide 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.

**USE RESTRICTIONS**

- Do not spray **RADICAL 250 EC** directly adjacent to leafy crops, especially vines and fruit trees and brassica species, as **RADICAL 250 EC** vapours or drift may cause damage to such crops.
- **Follow-up crops:**
  - **Do not** plant any crop within 6 months following a **RADICAL 250 EC** application, except crops on which **RADICAL 250 EC** is registered.
  - **Do not** plant tomatoes, tobacco, cruciferae or cucurbits within 12 months following a **RADICAL 250 EC** application. Where the **RADICAL 250 EC** dosage exceeded 1.25 litres per hectare, these crops may only be planted 18 months after application.
  - **Do not** sow any seedbeds within 18 months after a **RADICAL 250 EC** application.
- Soil must be deeply ploughed and cultivated before follow-up crop is planted. Contact your supplier in the event of uncertainty. **Do not** use **RADICAL 250 EC** for more than 3 years in succession on deciduous fruit.
- Under cropping conditions, **do not** apply **RADICAL 250 EC** more than once per year to the same land and then only at the recommended rate.
- It is recommended **not** to use **RADICAL 250 EC** spraying equipment for foliar spraying of other agrochemicals.
- **RADICAL 250 EC** may cause damage to sunflowers under the following conditions:
  - Application to poorly drained soils, shallow soils or soils with a compaction layer, which may lead to water logging.
  - Prolonged periods of cold, wet conditions or any other condition that places crop plants under stress during germination.

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

**Compatibility:**

- **RADICAL 250 EC** is compatible with **Metolachlor 960 EC**, **Palladium 960 EC** and **ALACHLOR 384 EC** (L 4348).

- The compatibility of **RADICAL 250 EC** may be influenced by several factors. As factors influencing compatibility may vary, a physical compatibility test must always be performed before such tank mixture is sprayed. In the case of uncertainty, contact the supplier or the registration holder.
- When **RADICAL 250 EC** is used in conjunction with any other agricultural remedy, all **WARNINGS**, **PRECAUTIONS** and **DIRECTIONS FOR USE** mentioned on that label, must be adhered to.

#### Mixing instructions:

- Only use clean water that is not brackish.
- Half fill the spray tank with clean water and start agitation.
- Add the required quantity of **RADICAL 250 EC** to the water.
- Fill the spray tank with water to the required level, while maintaining agitation, to ensure thorough mixing.
- Maintain agitation during application.
- Prepared spray mixture must not be left in the spray tank for any length of time, e.g. overnight.

#### Application:

- Apply as a pre-emergence application with regard to weeds and crop. Apply immediately or as soon as possible after planting of the crop.
- Use accurately calibrated equipment that is in good working condition and equipped with properly arranged suitable nozzles and an efficient agitation mechanism.
- Prepare a fine, even and firm seedbed, free of weeds, trash and clods.
- 10 to 20 mm rain within 7 to 10 days after application is necessary for good results.
- It is recommended to apply **RADICAL 250 EC** during times when the regular occurrence of rain is expected as the performance of the chemical is enhanced by soil moisture content.
- Apply with a tractor boom sprayer fitted with wide angle flat fan nozzles (e.g. Spraying Systems 11004). Apply with low pressure (200 kPa) in 200 to 400 litres water per hectare.
- Adjust boom height as required, to obtain adequate overlapping of the spray pattern.
- Wash spray tank/equipment **immediately after use** by thoroughly rinsing at least 3 times with clean water.

#### APPLICATION RATES

**Note: Refer to “USE RESTRICTIONS” above.**

#### SUNFLOWERS

<i>Soil Type &amp; % Clay</i>	<i>RADICAL 250 EC l / ha</i>	<i>PLUS Metolachlor 960 EC l / ha</i>	<i>OR Palladium 960 EC l / ha</i>	<i>OR Alachlor 384 EC l / ha</i>
< 15	Not recommended			
15 to 20	1.0	0.9 to 1.2	0.6 to 0.8	2.0
> 20	1.25	1.2 to 2.0	0.8 to 1.3	3.0

#### REMARKS

- Under certain conditions, which cannot be quantified, **RADICAL 250 EC** may cause slight phytotoxic effects in sunflowers grown in soils below 15 % clay and low organic matter content. Also, refer to **USE RESTRICTIONS** above.

#### **Do not use RADICAL 250 EC:**

- in seed, birdseed or confectionary type sunflowers.
- on sunflowers which have been planted in very shallow soil.

<b>WEEDS CONTROLLED BY RADICAL 250 EC PLUS Metolachlor 960 EC OR Palladium 960 EC OR Alachlor 384 EC:</b>	
<b>Annual broadleaf weeds:</b>	
<i>Amaranthus hybridus</i>	Common pigweed
<i>Chenopodium album</i>	White goosefoot
<i>Galingsoga parviflora</i>	Gallant soldier
<i>Nicandra physaloides</i>	Apple of Peru
<i>Portulaca oleracea</i>	Purslane
<i>Solanum nigrum</i>	Nightshade
<b>Annual grass weeds:</b>	
<i>Brachiaria eruciformis</i>	Sweet signal grass
<i>Chloris virgata</i>	Feather-top Chloris
<i>Dactyloctenium aegyptium</i>	Crowfoot
<i>Digitaria sanguinalis</i>	Crabfinger-grass
<i>Echinochloa crusgalli</i>	Barnyard grass
<i>Eleusine indica</i>	Goose grass
<i>Panicum maximum</i>	Common buffalo grass
<i>Panicum schinzii</i>	Sweet buffalo grass
<i>Pseudobrachiaria deflexa</i>	False signal grass
<i>Setaria pallide-fusca</i>	Red bristle grass
<i>Setaria verticillata</i>	Bur bristle grass
<i>Tragus berteronianus</i>	Small carrotseed grass
<i>Tragus racemosus</i>	Large carrotseed grass
<i>Urochloa mosambicensis</i>	Bushveld herringbone grass
<i>Urochloa panicoides</i>	Herringbone grass

<b>WEEDS VARIABLY CONTROLLED BY RADICAL 250 EC PLUS Metolachlor 960 EC OR Palladium 960 EC OR Alachlor 384 EC:</b>	
<i>Amaranthus thunbergii</i>	Red pigweed
<i>Chenopodium carinatum</i>	Green goosefoot
<i>Cleome monophylla</i>	Spindlepod
<i>Commelina benghalensis</i>	Wandering Jew
<i>Cyperus esculentus</i>	Yellow nutsedge

**NOTE**

- The control of Yellow nutsedge (*Cyperus esculentus*) is dependent on a thorough ploughing immediately before planting, application 1 to 2 days after planting, which is followed by about 10 to 20 mm rain within 7 to 10 days after ploughing. More rain is required on heavy soils.

The following product mentioned in this label may be replaced with equivalent products:

- METOLACHLOR 960 EC** (L 7136 / W 130057 / N-AR 1362) = **PLATINUM 960 EC** (L 7434) = **PLATINUM 960 EC** (L 8129) and
- PALLADIUM 960 EC** (L 9360 / W 130772) = **PENTIUM 960 EC** (L 9830) (**S-Metolachlor**).

**ALACHLOR 384 EC, METOLACHLOR 960 EC and/en PENTIUM 960 EC** are registered products of / is geregistreerde produkte van  
**UNIVERSAL CROP PROTECTION (PTY) LTD.**

**PALLADIUM 960 EC and/en PLATINUM 960 EC** are registered products of / is geregistreerde produkte van  
**VILLA CROP PROTECTION (PTY) LTD.**

**PLATINUM 960 EC** is a registered product of / is 'n geregistreerde produk van  
**CROP ASURE (PTY) LTD.**