## Herbicide



# SALUTE 480 SC

Reg. No. L 11564 Act No. 36 of 1947

2: 15/01/2025 - Jan2025



A suspension concentrate herbicide for use in onions, garlic, brassica crops, citrus, vineyards, orchards and forestry to control a variety of annual broadleaf and grass weeds as listed.

#### **ACTIVE INGREDIENT**

oxyfluorfen (diphenyl ether)

480 g/e

**GROUP** 

14

**HERBICIDE** 







#### **Hazard Statements:**

Very toxic to aquatic life with long-lasting effects.

#### **Precautionary Statements:**

Avoid release into the environment. Collect spillage.

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



Registration holder: UNIVERSAL CROP PROTECTION (PTY) LTD.
Co. Reg. No. 1983/008184/07
65 Botes Road, Glen Marais, Kempton Park, 1619
Tel. (011) 396 2233
Website: www.villacrop.co.za

IN CASE OF POISONING / 24 HR EMERGENCY NUMBERS: Griffon Poison Information Centre (National): +27 82 446 8946 Poison Information Helpline (National): +27 861 555 777 24 Hr Transport / Spill emergency no: (Hazcall24) +27 86 044 4411 (Client: Villa Crop Protection)

#### **SALUTE 480 SC**

Reg. No. L11564 Act No. 36 of 1947 HRAC HERBICIDE GROUP CODE: 14

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#### **WARNINGS**

#### **Hazard Statements**

Very toxic to aquatic life with long-lasting effects.

- Handle with care.
- Keep out of reach of children, uninformed persons and animals.
- Do not store or spray near open flames.
- Store in a cool, dry, well-ventilated area.
- Store away from food, feed, fertilizer and other agricultural products.
- Re-entry: Do not enter the treated area until spray deposit has dried unless wearing protective clothing.
- In case of poisoning, call a doctor and show him/her this label.

Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not warrant that it will be effective under all conditions. The activity 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 weed against the remedy, 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 by 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**

## Precautionary statement(s):

Avoid release into the environment.

Collect spillage.

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

- Wear rubber gloves and face shield protection when handling the concentrate.
- Avoid skin and eye contact by wearing protective clothing when mixing the product and do not breathe the fume.
- In case of accidental eye contact, flush with plenty of water for at least 15 minutes and get medical attention if necessary.
- Wash with soap and water after use, as well as after accidental skin contact and contaminated clothing.
- Do not eat, drink or smoke while mixing or applying the product or before washing hands and face.
- TRIPLE RINSE THE EMPTY CONTAINER AS FOLLOWS: Invert the empty container over the spray or mixing tank and drain for at least 30 seconds after the flow has slowed down to dripping. Thereafter rinse the empty container three (3) times in succession with one-quarter of the container volume fresh water and decant the rinsate into the spray or mixing tank. Puncture the triple rinsed container and dispose of it via an approved collector or recycler (www.croplife.co.za). Do not bury, burn or donate the container to any other parties that may use it as a container for food or beverages.
- Never re-use the empty container for any other purpose.
- Prevent contamination of food, feeds, drinking water and eating utensils.

SALUTE 480 SC Page 2 of 10

Relevant hazardous components		
Oxyfluorfen	480 g/ℓ	
MEG ( Monoethylene glycol)	<5%	
Tristyrylphenol ethoxylates	<5%	

**NOTE:** The ingredients listed above contribute to the overall GHS classification, the remaining ingredients do not have to be listed according to the South African Regulations for Hazardous Chemical Agents 2021, Regulation 14(b).

In case of poisoning, call the following number: +27 82 446 8946 (Griffon Poison Information Centre) or +27 861 555 777 (Poison Information Helpline).

In case of a chemical spill call the following 24 Hr Transport / Spill emergency number: +27 86 044 4411 (Hazcall24 / Client: Villa Crop Protection).

## Symptoms of human poisoning

No case of human poisoning known. No clinical symptoms shown by test animals during chronic feeding studies. **SALUTE 480 SC** causes moderate skin and severe eye irritation.

#### First Aid Measures:

- 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 and if symptoms persist, consult a doctor.
- <u>Skin:</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 occurs.**
- <u>Eyes</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>: If vapours or mists have been inhaled, move victim to fresh air and remove source of contamination if safe to do so. The patient should be kept under observation. **Obtain medical** attention.
- <u>Ingestion:</u> **Seek medical attention** or call a poison control centre for treatment advice. Do not induce vomiting unless instructed to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person. If the person is alert, rinse mouth thoroughly with water.
- Advice to physician: There is no specific antidote available. Treat symptomatically and supportively.

## Note to physician

No specific antidote is recommended. Careful gastric lavage and general decontamination should be sufficient. If very large quantities of **SALUTE 480 SC** have been ingested treatment should be symptomatic if any symptoms do develop.

## **RESISTANCE MANAGEMENT**

**SALUTE 480 SC** is a **Group Code 14** herbicide. Any weed population may contain individuals naturally resistant to **SALUTE 480 SC** and other **Group Code 14** herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **SALUTE 480 SC** or any other **Group Code 14** herbicides. To delay herbicide resistance:

- Avoid exclusive repeated use of herbicides from the same herbicide Group Code,
- Alternate with products from different herbicide Group Codes,
- Integrate other control methods (chemical, cultural, biological) into weed control programmes.

For specific information on resistance management, contact the registration holder of this product or consult the website of the Herbicide Resistance Action Committee (https://hracglobal.com/). If resistance is suspected, please consult your local company representative or agricultural advisor.

SALUTE 480 SC Page 3 of 10

#### Mode of action

**OXYFLUORFEN-** the active ingredient of **SALUTE 480 SC** possesses extremely low water solubility. After application, it binds rapidly and tightly to clay particles and organic matter in the surface soil layer. **Oxyfluorfen** does not leach into the soil and is not absorbed by roots. After application, **Oxyfluorfen** forms a thin layer or barrier on the soil surface when activated by the presence of moisture. **Oxyfluorfen** kills weeds through contact activity on shoots of germinating seeds or young seedlings as they emerge through the chemical layer that has been formed. Fields applied with **SALUTE 480 SC** must not be cultivated or disturbed as disturbing the herbicide layer on the soil surface will adversely affect weed control. For effective weed control, it is important to apply **SALUTE 480 SC** to damp, stabilized soil and follow up with a minimum of 5 mm rain or irrigation within 7 days after application. To stabilize soil prior to **SALUTE 480 SC** application a light irrigation of 5 to 10 mm may be applied. Optimum residual effect may be obtained if soil is not allowed to dry out completely at any stage.

## **USE RESTRICTIONS**

- DO NOT use SALUTE 480 SC in conjunction with any other herbicide.
- Apply **SALUTE 480 SC** to a clean soil surface, without any plant residues that could impair activity. It is therefore not suitable for use in minimum tillage systems.
- **SALUTE 480 SC** should be applied to moist soil and the soil must remain moist as long as possible, to enhance residual activity. Uneven irrigation may result in variable weed control.

#### Follow-up crops:

The following waiting periods should be adhered to with respect to follow-up crops:

Crop	Period
All Crops	2 Months / 500 mℓ applied

- Thorough and deep ploughing is recommended before planting a follow-up crop on a SALUTE
   480 SC treated field.
- A period of two (2) months per 500 mℓ of SALUTE 480 SC previously applied per hectare, should be allowed to lapse before planting follow-up annual crops.
   IMPORTANT
  - The application of SALUTE 480 SC differs entirely from crop to crop and the specific directions for each crop should be adhered to closely.
- Direct seeded crops sown on soil that has been treated with **SALUTE 480 SC** within the preceding eighteen months must not be treated with α-Chloroacetamides herbicides (e.g., **S-metolachlor**, **Acetochlor**, **Alachlor**)
- <u>Brassicas:</u> Do not apply **SALUTE 480 SC** after transplanting. Direct contact of **SALUTE 480 SC** with these crops will lead to severe damage. Waterlogging conditions resulting from extended rainfall and/or irrigation causing wet, saturated soil conditions will result in plants not growing actively and crop injury where **SALUTE 480 SC** is applied may result. Plantings of brassica crops which could possibly be exposed to the above mentioned adverse climatic conditions must not be treated with **SALUTE 480 SC**.
- **SALUTE 480 SC** is held in a thin layer at the soil surface after application with the result that it can be splashed by rain or irrigation onto leaves of crops close to the ground. Because of its highly active contact action, this may result in crop injury on leaves and/or on crops not listed on this label that are planted nearby or between trees or vines.
- During cool (1 to 15 °C), wet, wind-still conditions, with high levels of soil and atmospheric moisture, co-distillation of **SALUTE 480 SC** may occur, and the vapour may then be absorbed by crop leaves, which may also result in leaf scorching. This may lead to yield loss in brassica crops.
- Deciduous fruit and vines: It is recommended that SALUTE 480 SC must be applied at least 4
  weeks prior to expected bud burst of these crops. This is due to the highly active contact action of
  SALUTE 480 SC small spray droplets that may drift up into fruit trees and vines may cause leaf
  burn of immature leaves as well as small burn spots on young fruitlets. Scar tissue then develops
  around the burn spots that may leave the mature fruit with an unacceptable appearance for export.
- Drip irrigation does not activate the **SALUTE 480 SC** at the soil surface. **DO NOT** use where drip irrigation is practiced.

SALUTE 480 SC Page **4** of **10** 

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

## **NOTICE TO USER:**

Read the entire label before application. This agricultural remedy is to be used only in accordance with the instructions on the label. It is an offence under the Act to use this agricultural remedy for any purpose in a manner contrary with the directions on the label.

Use recommendations of SALUTE 480 SC are crop-specific and should be followed closely.

#### Application Requirements and Timing of Application:

- Apply **SALUTE 480 SC** by tractor-mounted boom sprayer or knapsack sprayer equipped with Teejet flat fan-nozzles which should deliver the indicated volume of spray mixture per hectare at a pressure of 100 to 200 kPa. The spray apparatus must be properly calibrated.
- The spray mixture must be continuously well agitated when spraying and ensure even distribution of the spray mixture.
- SALUTE 480 SC has both post-emergence and residual action on both broadleaf and grass weeds. Post-emergence action is, however, limited to seedlings. For optimum residual effect SALUTE 480 SC should be applied prior to the emergence of weeds.
- SALUTE 480 SC should be applied to moist soil and the soil must remain moist as long as possible, to enhance residual activity.
- The application of **Oxyfluorfen** should have been preceded by light irrigation or rain for optimal efficacy and crop tolerance. Follow-up irrigation or rainfall within 7 days after application of **SALUTE 480 SC** is equally important. Uneven irrigation may result in variable weed control.

**DO NOT** apply **SALUTE 480 SC** to fields with organic mulch of more than 30 % coverage as a high presence of organic material on the soil surface will adversely affect results obtained. Remove excessive coverage of dead plant material (organic material) from the surface before applying **SALUTE 480 SC**.

SALUTE 480 SC Page **5** of **10** 

## **APPLICATION RECOMMENDATIONS**

## A. ANNUAL CROPS

See notes under "DIRECTIONS FOR USE" above.

Crop	Rates per hectare	Remarks
Garlic	1500 mℓ	Apply <b>SALUTE 480</b> Immediately after planting garlic and follow up with normal irrigation as soon as possible after application.  Slight scorching and/or pigtailing of leaves may occur, shortly after application, especially under cold, damp, windless conditions. High soil temperatures may delay emergence and cause leaf scorch.  Apply in 300 to 400 litres per hectare
Onions  Transplanted Onions	1500 mℓ	IMPORTANT NOTES FOR TRANSPLANTED ONIONS: Apply SALUTE 480 SC when plants have reached the 2 to 3 true leaf growth stage. Apply directly after transplanting, followed by irrigation. Slight scorching or pigtailing of leaves may occur shortly after application of SALUTE 480 SC, but this is normally of a temporary nature and full recovery takes place within a few weeks.  Symptoms may be more evident on male than on female plants. Weak plants may be susceptible to damage. Unless specifically stated otherwise, all applications of SALUTE 480 SC on transplanted onions should be applied on damp, stabilised soil and should be followed immediately by a thorough irrigation.  Apply directly after transplanting in 300 to 400 litres water per hectare.
Long Season Cultivars	750 mℓ <b>PLUS</b> 750 mℓ	Apply the first application of 750 m $\ell$ per hectare immediately after transplanting and irrigate lightly.  Follow-up with a further application at the same rate after one month in 300 to 400 litres water per hectare.
Short Season	500 mℓ  PLUS  500 mℓ  OR	Apply directly after transplanting in 300 to 400 litres water per hectare and follow up with light irrigation. Follow again as soon as possible with a normal irrigation. Follow up with a further application at the same rate after one month.
cultivars	750 mℓ <b>PLUS</b> 750 mℓ	NOTE Apply lower rates of 500 m/ per hectare in areas where BROADLEAF WEEDS are the main issue and the higher 750 m/ per hectare where both GRASS and BROADLEAF weeds are an issue.

SALUTE 480 SC Page 6 of 10

Crop	Rates per hectare	Remarks
<u>Direct Seeded</u> <u>Onions</u> Karoo Region	1500 mℓ	Apply <b>SALUTE 480 SC</b> to Caledon Globe and Australian Brown cultivars only.  Apply when the onions are in the 3 to 4 leaf stage (approximately 2 to 3 months after sowing) in 300 to 400 litres per hectare.  Application may be delayed for up to a month if weed development is slow after the 3-leaf stage.  Follow-up with normal irrigation as soon as possible after application.
Summer rainfall Regions  Post-emergence	500 to 750 mℓ	Apply SALUTE 480 SC only on direct seeded onions after the seedlings have developed two (2) fully expanded leaves.  IMPORTANT  Apply when the weeds are in the 2 to 3-leaf stage.  Depending on weed pressure a follow-up application at 750 mℓ per hectare of SALUTE 480 SC 4 to 6 weeks later may be necessary.  The lower SALUTE 480 SC rate should be used for applications on less hardy onion cultivars. Apply in 300 to 400 litres per hectare.  NOTE  Larger weeds, and weeds under stress from drought, frost or other climatic extremes may not be satisfactorily controlled.
Brassica Crops (including Cabbage, Cauliflower, Broccoli & Brussel sprouts)	1000 to 1500 mℓ	Apply SALUTE 480 SC as an overall pre-plant broadcast treatment to lands on which brassica crops are to be transplanted. Apply a light irrigation prior to application of SALUTE 480 SC to stabilise the soil.  Plant seedlings 7 to 10 days after the application of SALUTE 480 SC to prevent serious crop injury.  Irrigate immediately after transplanting to prevent excessive wilting and lodging of the transplanted plants.  Apply in 300 to 400 litres per hectare.  SALUTE 480 SC MUST NOT BE APPLIED AFTER TRANSPLANTING OF BRASSICA CROPS. DIRECT CONTACT OF SALUTE 480 SC WITH THE LEAVES OF THESE CROPS WILL LEAD TO SEVERE DAMAGE.

- **SALUTE 480 SC** is not recommended where a machine is used to do transplanting, as this will lead to soil disturbance and ultimately disturb/break the herbicidal layer on the soil surface.
- Transplant brassica crops into the treated soil only 7 to 10 days after application of SALUTE 480 SC.
   The plants must be planted as erect as possible and soil disturbance must be kept to the minimum.
- Temporary slight scorching of leaves may occur to the seedlings, which normally should recover within a short period. New growth, under normal conditions, will not be affected.

## NOTE

Use **SALUTE 480 SC** on the following Brassica cultivars.

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Cauliflower	Couchamp, Igloo, Snowcap, Snowcrown, Snow February, Snowking	
Cabbage	Bonanza, Cape Spitz, Drumhead, Gloria Osena, Glory of Enkhuizen, Green Coronette, Hercules, NS Cross, Rodelle, Rolan, Shamrock.	
Brussel Sprouts:	Jade Cross, Long Island.	
Broccoli:	Green Sprouting alabrese, Late Corona.	

SALUTE 480 SC Page **7** of **10** 

## **B. PERENNIAL CROPS**

See notes under "USE RESTRICTIONS" above.

- Avoid leaf contact of SALUTE 480 SC with all crops in this group.
- **Do not** apply **SALUTE 480 SC** at all in nurseries, nor onto or over or in the vicinity of nursery plant material.
- Under cold, wet and moist conditions SALUTE 480 SC vapours may cause scorching of the lower leaves (especially in young trees). This localized scorching will not influence further growth under normal conditions.
- **SALUTE 480 SC** must be applied to a clean soil surface. To achieve this effect all weeds present, should be removed either by hand or by using a suitable registered contact herbicide.
- **Do not** apply a **SALUTE 480 SC** rate of greater than 500 mℓ per hectare to deciduous fruit or vines after budding has occurred and only after the beginning of December.

Crop	Rates per hectare	Remarks
Pome and Stone Fruit Orchards  Established orchards of one year and older	1500 to 2000 mℓ	For use in Pome and Stone fruit orchards of all ages. See notes under "DIRECTIONS FOR USE" above.  Use 1500 mℓ per hectare where mostly broadleaf weeds are a problem. Apply as a directed spray to a clean soil surface approximately four (4) weeks before budding.  Where weeds have already emerged, these must first be cultivated or killed by spraying with a suitable registered postemergence herbicide.  Apply SALUTE 480 SC in 400 to 600 litres per hectare.  SALUTE 480 SC must not be applied in the period from one
Newly planted trees	1500 to 2000 mℓ	(1) month before budding until the beginning of December.  See notes under "DIRECTIONS FOR USE" above.  Use 1500 m/ per hectare where mostly broadleaf weeds are a problem. Apply as a directed spray to a clean soil surface approximately four (4) weeks before budding.  Where weeds have already emerged, these must first be cultivated or killed by spraying with a suitable registered postemergence herbicide.  Apply SALUTE 480 SC in 400 to 600 litres per hectare.  SALUTE 480 SC must not be applied in the period from one (1) month before budding until the beginning of December.  May only be considered if young trees have not yet budded. Apply within three (3) days after transplanting, but at least 21 days before budding commences, as a directed spray on a damp soil surface.  To activate the SALUTE 480 SC on the soil surface, if rain has not occurred, a light irrigation of at least 5 mm should be applied with 7-days of herbicide application.  Apply in 400 to 600 litres water per hectare.
Vines	1500 to 2000 mℓ	Use only in established trained vines of one year and older.  Apply only during the dormant stage until the end of July, but no later than one (1) month before budding.  Apply in 400 to 600 litres water per hectare.

SALUTE 480 SC Page 8 of 10

Сгор	Rates per hectare	Remarks
<u>Citrus</u>	1500 to 2000 mℓ	For use in Citrus Orchards of all ages.  Apply as a directed spray after all new foliage has fully expanded and hardened off.  Do not apply during the periods of three (3) weeks before flowering till three (3) weeks after fruit set, or during periods of new foliage growth.  Use 1500 mℓ per hectare where broadleaf weeds are the main problem. Apply in 400 to 600 litres water per hectare.
Pines Pre-emergence of Pine Seedlings:	1500 mℓ	Apply <b>SALUTE 480 SC</b> for pre-emergence weed control in seedbeds, container stock and transplants of <i>Pinus elliotti</i> , <i>P. taeda and P. patula</i> .  Apply in 300 to 400 litres per hectare.  Apply <b>SALUTE 480 SC</b> to the seedbeds immediately after sowing.
Post-emergence of seedlings, transplants and container stock	1000 111	SALUTE 480 SC may be applied to seedlings 10 to 12 weeks after sowing as well as to older plants.  Apply SALUTE 480 SC before bud break or after foliage has hardened off.  DO NOT use SALUTE 480 SC on growing media other than soil.
Eucalyptus  Pre-plant treatment		Apply to the soil surface of the planting area immediately prior to the transplanting of Eucalyptus seedlings. The soil surface must be disturbed as little as possible during transplanting of the seedlings. Apply in 300 to 400 litres per hectare.
Post-planting treatment	1500 mℓ	SALUTE 480 SC may be applied to plantings of <i>E. grandis</i> , <i>E. nitens</i> and <i>E. macarthurii</i> , within four (4) days of transplanting and prior to weed emergence. Apply in 300 to 400 litres per hectare.  NOTE Slight scorching of leaves may be noted on seedlings treated over the top. This is of a transient nature and is outgrown within a few weeks. It is essential however that the seedlings be of good quality and free from disease. Seedlings affected with Botrytis may be severely scorched or even killed.

WEEDS CONTROLLED BY SALUTE 480 SC		
Annual Broadleaf Weeds:		
Botanical name	Common name	
Amaranthus spp.	Pigweed	
Anagallis arvensis	Pimpernel	
Arctotheca calendula	Cape marigold	
Argemone subfusiformis	White-flowered Mexican poppy	
Bidens pilosa	Common blackjack	
Capsella bursa-pastoris	Shepherd's purse	
Chenopodium album	White goosefoot	
Chenopodium carinatum	Green goosefoot	
Conyza bonariensis	Flat-leaf fleabane	

SALUTE 480 SC Page 9 of 10

Datura ferox	Large thorn apple		
Emex australis	Spiny emex		
Fumaria muralis	Fumitory		
Galinsoga parviflora	Gallant soldier		
Nicandra physalodes	Apple-of-Peru		
Oenothera stricta	Evening primrose		
Plantago lanceolata	Narrow leaved ribwort		
Polygonum aviculare	Prostrate knotweed		
Portulaca oleracea	Purslane		
Raphanus raphanistrum	Common wild radish		
Schkuhria pinnata	Dwarf marigold		
Sisymbrium thellungii	Common wild mustard		
Sonchus oleraceus	Sowthistle		
Spergula arvensis	Corn spurry		
Stellaria media	Chickweed		
Tagetes minuta	Khaki weed		
Annual Grass Weeds:			
Eleusine coracana	Goose grass		
Lolium multiflorum	Italian ryegrass		
Setaria verticillata	Sticky Bristlegrass		

SALUTE 480 SC Page 10 of 10