

BEFORE USING THIS PRODUCT READ THE LABEL CAREFULLY!

Herbicide



2,4-D AMINE SOLUBLE

Reg. No. L 6207 Act/Wet No. 36 of/van 1947

2:22/4/2013-June2017

*Water-soluble granules.
A dry, highly concentrated water-soluble formulation for the selective control of mainly broadleaf weeds on various crops and grass pastures as listed.*

*Wateroplosbare korrels.
'n Droë, hoogs wateroplosbare formulasie vir die selektiewe beheer van hoofsaaklik breëblaaronkruidе op verskeie gewasse soos aangedui.*

ACTIVE INGREDIENT / AKTIEWE BESTANDEEL

(2,4-dichlorophenoxy) acetic acid / (2,4-dichloorfenoksie) asynsuur 800 g/kg
(as the 2,4-D-dimethylammonium salt / as die 2,4D-dimetiелammoniumsout) 969 g/kg

HRAC HERBICIDE GROUP CODE **O** HRAC ONKRUIDDODER GROEPKODE

kg

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

UN Number: 2588

Willow Set & Print 011 394-4486



HARMFUL
SKADELIK



GERBUKSAANWYSYNGS INGESLUIT

VERWYS NA BESONDERHEDE
GEDRUK OP HOUER/SAK

Date formulated:
Formuleringsdatum:

REFER TO DETAILS PRINTED
ON CONTAINER/BAG

DIRECTIONS FOR USE ENCLOSED

Batch number:
Lotnommer:

2,4-D AMINE SOLUBLE

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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

**HARMFUL****SKADELIK****WARNINGS**

- **Withholding period - allow 7 days between last application and harvest or grazing.**
- Handle with care.
- Poisonous when absorbed through the skin, swallowed or inhaled.
- Toxic to fish, honeybees and wildlife.
- Store in a cool place, away from food, feeds, seed, fertilizers and other agricultural remedies.
- 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 call a doctor and make this label available to him/her.**

Aerial application:

- Notify all inhabitants in the immediate vicinity of the lands to be sprayed and issue the necessary warnings.
- Do not spray over or allow drift to contaminate water or adjacent areas.
- **2,4-D AMINE SOLUBLE** is a highly active herbicide that in small quantities, when used incorrectly, can cause serious damage to crop seedlings, deciduous fruit trees and grape vines during the budding and early season growth stages.
- Under the following conditions it can cause serious damage as far as 3 to 5 km from the nearest spray path of the aircraft: Cloudy weather with relative humidity above 80 % and low air movement of less than 5 km per hour.
- When such conditions prevail, aerial application should **NOT** be carried out where crop seedlings, deciduous fruit trees and grape vines, in budding or early season growth stages, are present within 5 km of the nearest spray path of the aircraft.

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 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 beast 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

- Wear rubber gloves and a face shield when handling the formulation and an appropriate face mask when applying.
- Do not breathe vapour or spray mist while mixing or applying.
- Wash contaminated clothes after use.
- Wash with soap and water immediately after use, handling or accidental skin contact or before eating, drinking or smoking.
- Do not eat, drink or smoke whilst applying or mixing or before washing hands and face or change of clothing.

- **Cleaning of Application Equipment:** Special attention and care must be taken with cleaning of all equipment used in the mixing and application of **2,4-D AMINE SOLUBLE**, before using it for applications in other crops:
 1. Drain the spray tank and rinse thoroughly with ample water. Flush the pipes, boom and nozzles of applicator with the water.
 2. Drain spray tank again and fill with clean water.
 3. Add household ammonia to water in the spray tank (1 litre for every 100 litres water) or 1 litre sodium hypochlorite (4.5 %) per 200 litres water.
 4. Bleed the system to ensure that all pipes, booms and nozzles are filled with the ammonia solution.
 5. Leave the ammonia solution in the applicator for at least one hour.
 6. Drain the spray tank and pipe system completely.
 7. **Repeat steps 2 to 6.**
 8. Remove ammonia residues by flushing the system thoroughly with clean water.
 9. Contamination of mixing equipment must also be washed with ammonia solution, whilst those on the outside of equipment can be washed with water.
- **Do not** dispose of wash water where it will contaminate crops, grazing, boreholes, rivers or dams or contaminate the roots of desirable plants.
- Destroy the empty container/box/drum and **never** use for any other purpose.
- Prevent contamination of food, feeds, drinking water and eating utensils.

SYMPTOMS OF HUMAN POISONING

Harmful. In case of over-exposure to the product and excessive amounts are swallowed, may cause nausea, vomiting, sweating, headaches, muscle soreness, abdominal pain and loss of coordination. May cause burns of mouth, throat and esophagus.

FIRST AID TREATMENT

- **Inhalation:** Remove source of contamination, or leave contaminated area to fresh air as rapidly as possible. Keep affected person warm and at rest. Treat symptomatically and supportively. Administration of oxygen should be performed by qualified personnel.
- **Skin contact:** If irritation occurs, remove contaminated clothing, shoes and leather goods (e.g. watchbands and belts). Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. Do not rub the skin. If irritation persists, seek medical advice immediately.
- **Eye contact:** Immediately flush eyes with gently flowing lukewarm water for 15 minutes or until the product is removed, holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. **Seek medical attention immediately.**
- **Ingestion:** Have victim rinse mouth thoroughly with water. **Do not induce vomiting.** If person is alert and conscious, give 2 to 3 glasses of water to drink. **Seek medical attention immediately.**

NOTE TO PHYSICIAN

This product contains a phenoxy herbicide. There is no antidote. Treat symptomatically and supportively. It is advised to empty the stomach by gastric lavage with activated charcoal. Follow-up with 0.9 % saline cathartic. Avoid oily laxatives.

RESISTANCE WARNING

2,4-D AMINE SOLUBLE is a group code O herbicide. Any weed population may contain individuals naturally resistant to **2,4-D AMINE SOLUBLE** and other group code O herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **2,4-D AMINE SOLUBLE** or any other group code O herbicide.

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 weed control programmes.

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

USE RESTRICTIONS

- **Do not apply this product by air in KwaZulu-Natal.**
- To prevent damage, do not permit drift, vapour or spray mist to come into contact with sensitive broadleaf crops, fruit or ornamentals.
- Apply the product strictly in accordance with the “**Application Directions**” and read the “**Warnings**”.
- Avoid fine droplet sizes – Spray volume must exceed 200 litres per hectare.
- Do not exceed a spray height of 50 cm above target and ground speed of 10 km per hour.

- Do not apply if the wind velocity exceeds 15 km per hour.
- The difference between the wet and dry bulb readings on a whirling hygrometer must not exceed 8 °C.
- Do not spray under cold and/or flood conditions or if such conditions are expected within the next couple of days as this may damage the crop.

DIRECTIONS FOR USE: Use only as directed.

Compatibility

- **Do not** acidify the spray mixture by adding buffers or acidifiers as this may result in precipitation of the active ingredient.
- The compatibility of **2,4-D AMINE SOLUBLE** 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 case of uncertainty contact the supplier or the registration holder.
- When **2,4-D AMINE SOLUBLE** is used in conjunction with any other agricultural remedy, adhere to all **WARNINGS, PRECAUTIONS** and **DIRECTIONS FOR USE** mentioned on that label.

Mixing instructions:

- Half fill the spray tank with clean water and engage the agitation mechanism.
- First dissolve the required amount of **2,4-D AMINE SOLUBLE** in a container with sufficient volume of clean water.
- Add this solution to the water in the spray tank while maintaining agitation.
- Fill the spray tank with water to the required level, while maintaining agitation, to ensure thorough mixing.
- In the case of tank mixtures, first add the **2,4-D AMINE SOLUBLE** solution followed by the complimentary product(s). **Important, always add emulsifiable formulations (e.g. EC/EW), surfactants or oils last to the tank just before the final volume is reached.**
- Maintain agitation during application.
- Prepared spray mixture must not be left in the spray tank for any length of time, e.g. overnight.

Post-emergence application:

- Spray before the crop becomes too dense, which will prevent weeds from being properly covered.
- Spray when the crop is at a suitable stage of development, as indicated below, preferably when the weeds are in a young stage and the soil is moist.

Ground application:

- Apply in a minimum of 200 litres water per hectare with a correctly calibrated sprayer that is in good working condition, to ensure that the correct dosage is evenly distributed over the target area. Use low-pressure anti-drift type flat fan nozzles and do not exceed a spray pressure of 200 kPa.
- Apply evenly as a medium to coarse spray, but prevent run-off of droplets from the weeds.
- Ensure complete coverage of weeds.

Aerial application: Do not apply this product by air in KwaZulu-Natal.

Aerial application of **2,4-D AMINE SOLUBLE** 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 mixture 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 aurally 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 300 to 350 micron is recommended. Limit the production of fine droplets less than 150 micron (high drift and evaporation potential) to a minimum.
- The use of a suitable drift retardant and/or low drift nozzles (e.g. straight stream nozzles) is recommended. In case of fixed-wing aircraft flying at a speed faster than 130 mph, the maximum deflection angle of nozzles or spray stream, as measured from a horizontal straight backwards orientation, may not exceed 30 degrees. In the case of slower flying fixed wing aircraft, the maximum deflection angle as described above, may not exceed 55 degrees.

- **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 per hour.
- 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:
 - 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

IMPORTANT: Refer to “USE RESTRICTIONS” and “DIRECTIONS FOR USE” above.

<i>Crop / Soil Type</i>	<i>Dosage / ha</i>	<i>Remarks</i>
<u>Barley and Rye</u> (only post-emergence)	0.75 to 1.3 kg	Spray when the crop is in the 5-leaf (5 leaves on the main haulm with leaf 6 already visible) stage. Use the higher rate for severe weed infestation.
<u>Grass pastures, Lawns & Turf</u> (established only)	1.6 to 2.2 kg	Established pastures and lawns only . Applications of nitrogenous fertilizer 2 to 3 weeks before spraying are recommended. Use the higher dosage rate for severe weed infestations or less susceptible weed stage. Repeat application on lawns, if necessary.
<u>Grain sorghum</u> (only post-emergence)	1 kg	Apply when plants are 15 to 25 cm high, about 3 weeks after emergence of the grain sorghum. Spray may be applied later, provided directional spraying using drop arms is practiced.
<u>Wheat</u> (only post-emergence)	0.75 to 1.3 kg	Apply between growth stages 7 (center of double ridges enlarged) and 13 (awn of the top spikelets elongated) according to the list of growth stages for wheat drawn up by the Small Grains Institute, Bethlehem.
<u>Maize</u> Post-emergence (after reaching a height of 30 to 45 cm)	1 kg	Apply when crop is 45 cm tall. Use drop arms for directed spraying, to ensure that the spray does not land in the funnel of maize plants as this may cause damage to the crop. <i>Striga asiatica</i> (Witchweed) should be sprayed when first flowers are noticed. Maize may become brittle and malformed after application, but this is usually of a temporary nature. Grass weeds already emerged at this stage will not be controlled.
<u>Sugarcane</u> Post-emergence Plant and Ratoon cane	2.6 to 3.6 kg	Apply as a directed inter-row spray in 300 to 400 litres water per hectare, at any stage of weed growth and after crop emergence. If sugarcane exceeds a height of 40 cm or has unfurled more than 5 leaves per shoot, directed spraying must be carried out or else the growth may be retarded.

SOME WEED SPECIES NORMALLY CONTROLLED BY 2,4-D AMINE SOLUBLE:

<i>Ageratum conizoides</i>	Blue weed
<i>Amaranthus hybridus</i>	Cape pigweed
<i>Arctotis leiocarpa</i>	Karoo daisy (early rosette stage)
<i>Arctotis venusta</i>	Free State daisy
<i>Bidens bipinnata</i>	Spanish blackjack
<i>Bidens pilosa</i>	Common blackjack
<i>Chenopodium album</i>	White goosefoot
<i>Commelina benghalensis</i>	Wandering Jew
<i>Cosmos bipinnatus</i>	Cosmos
<i>Datura ferox</i> *	Large thorn apple
<i>Datura stramonium</i> *	Common thorn apple
<i>Galinsoga parviflora</i>	Small flowered quick weed
<i>Polygonum aviculare</i>	Prostrate knotweed
<i>Portulaca oleracea</i>	Common purslane
<i>Raphanus raphanistrum</i>	Wild radish
<i>Striga asiatica</i>	Witchweed
<i>Tagetes minuta</i>	Tall khakiweed
<i>Tribulus terrestris</i>	Common dubbeltjie
<i>Vicia hirsuta</i>	Tiny vetch
<i>Vicia sativa</i>	Common vetch
<i>Xanthium strumarium</i>	Large cockle bur

* - In the 2 to 3 leaf stage

NOTE

This product controls some annual broadleaf weeds. Other weeds that were not present during the development trials with the product, might possibly also be controlled to a certain degree. The registration holder does not accept any responsibility for unlisted weeds.