ADAMA
Listen · Learn · Deliver

ADAMA 2,4-D AMINE 480 SL

Reg. no. L11182 Act/Wet 36 of/van 1947

READ THE LABEL BEFORE USE
KEEP OUT OF REACH OF CHILDREN AND ANIMALS

GROUP	4	HERBICIDE

A water-soluble herbicide with selective hormone action for the control of broad-leaved weeds in crops as indicated.	'n Wateroplosbare onkruiddoder met selektiewe hormoonaksie vir die beheer van breëblaaronkruide in gewasse soos aangedui.

DANGER

Hazard statements
Harmful if swallowed.
May be harmful in contact with skin
Harmful if inhaled
Causes skin irritation
Causes serious eye damage
May cause an allergic skin reaction
May cause drowsiness or dizziness
Harmful to aquatic life with long lasting effects

Precautionary statements
Avoid breathing dust/fume/gas/mist/vapours/spray.
Wash hands thoroughly after handling.

ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL

Phenoxy caboxylates (dimethylamine salt) 2,4-D …….	480 g/L	fenoksiekarboksilaat ……(dimetielamiensout) 2,4-D

NET VOLUME/NETTO VOLUME

…… L

REGISTRATION HOLDER/REGISTRASIEHOUER
ADAMA South Africa (Pty) Ltd; Reg. no. 1992/001741/07
Ground Floor, Simeka House
The Vineyard Office Estate, 99 Jip de Jager Drive
Belville, 7530
T: +27 21 982 1460, infocpt@adama.com

UN no.: Not applicable
EMERGENCY NUMBERS:
Griffon Poison Information Centre: +27 82 446 8946
Tygerberg Poison Information Centre: +27 861 555 777

Batch number	.....	Lotnommer
Date of Manufacture	.....	Datum van Vervaardiging
Expiry date	…….	Vervaldatum

ADAMA
Listen · Learn · Deliver

WARNINGS

- Harmful if swallowed.
- May be harmful in contact with skin.
- Harmful if inhaled.
- Causes skin irritation.
- Causes serious eye damage.
- May cause an allergic skin reaction.
- May cause drowsiness or dizziness.
- Harmful to aquatic life with long lasting effects.

Withholding period - allow seven days between last application and harvest or grazing.

- Handle with care.
- Store in a cool place, away from food, feeds, seed, fertilizer and other agricultural remedies.
- Keep out of reach of children, uninformed persons and animals.
- **Aerial application**: Notify all inhabitants in the immediate vicinity of the lands to be sprayed and issue the nevessary warnings. Do not spray over or allow drift to contaminate water or adjacent areas.

Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not guarantee that it will be effective under all conditions. The activity and effect thereof may be affected by factors such as 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 as well as by the method, time and accuracy of application. The registration holder furthermore does not accept responsibility for damage to crops, vegetation, and the environment or harm to humans or animals 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

- Avoid breathing dust/fume/gas/mist/vapors or spray.
- Do not eat, drink or smoke when using this product.
- Use only outdorrs or in a well-ventilated area.
- Wear protective gloves.
- Contaminated work clothing should not be allowed out of the workplace.
- Take off contaminated clothing and wash it before reuse.
- Wash hands thoroughly after handling. Do not touch eyes.

- Avoid release to the environment.
- Get medical help if you feel unwell.
- IF SWALLOWED: Rinse mouth. Get medical help.
- IF ON SKIN: Wash with plenty of water. Get medical help. Specific treatment (see on this label).
- If skin irritation or rash occurs: Get medical help.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical help.
- IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical help.
- Store locked up in a well-ventilated place. Keep container tightly closed.
- Dispose of contents/ container in accordance with local/regional/national/international regulations.

- Wash with soap and water after use.
- Clean applicator with a household ammonia solution (1%) before using with other material. Let solution stand for several hours, preferably over-night. Rinse at least twice.
- Triple rinse empty containers in the following manner: 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 empty container three times in succession with one quarter on the container volume fresh water and decant the rinsate into the spray or mixing tank. Puncture the triple rinsed container and dispose of via an approved collector or recycler (www.croplife.co.za).
- Do not bury or donate the container to any other parties that may use it as a container for food or beverages.
- Dispose of wash water where it will not contaminate food, grazing, rivers or dams.
- Prevent contamination of food, feeds, drinking water and eating utensils.

RELEVANT SUBSTANCES

Chemical name	**w/w %**	**CAS no.**
2,4 D	30 – 60%	94-75-7
Dimethylamine	10 – 30%	124-40-3

FIRST AID

In case of accident or unwellness, seek medical advice immediately. Provide this SDS to medical personnel for treatment. Emergency personnel should wear protective clothing appropriate to the type and degree of contamination.

Immediately remove contaminated clothing and remove the affected person from the contamination area. Keep the person warm, calm and covered up. First Aid personnel should pay attention to their own safety.

Take the container label or product name with you when seeking medical attention.

Eye contact: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing.

Skin contact: Remove all contaminated clothing, shoes. Wash affected skin areas gently and thoroughly with water and non-abrasive soap. Do not rub the skin.

Inhalation: Immediately remove the affected victim from exposure to an area with fresh air. If breathing is difficult have qualified personnel administer oxygen. If breathing has stopped, administer artificial respiration. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Treat symptomatically and supportively. Get medical attention if effects persist.

Ingestion: Call a poison control center or medical practitioner immediately for treatment advice. If conscious, rinse mouth thoroughly with water. Drink plenty of water. DO NOT induce vomiting. Never give anything by mouth to an unconscious or convulsing person. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomit, rinse mouth and administer more water. Seek medical advice.

Note to physician

Treatment based on judgement of physician in response to symptoms of patient. If lavage is performed, suggest endotracheal and/or oesophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach.

TOXICOLOGICAL INFORMATION

Antidotes

No specific antidote.

Symptoms of human poisoning

None known.

NOTICE TO THE USER: This agricultural remedy is to be used only in according to the directions of this label. It is an offense under the Act to use this product inconsistent with the directions on the label.

ADAMA
Listen · Learn · Deliver

RESISTANCE WARNING

ADAMA 2,4-D AMINE 480 SL is a group code 4 herbicide. Any weed population may contain individuals naturally resistant to **ADAMA 2,4-D AMINE 480 SL** and other group code 4 herbicides. If these herbicides are used exclusively and repeatedly, the resistant weeds may eventually dominate the population. These resistant weeds will probably not be controlled by **ADAMA 2,4-D AMINE 480 SL** or any group code 4 herbicides.

To delay herbicide resistance:

- Avoid the exclusive repeated use of herbicides in the same group code. Alternate or use in tank mix with products from different groups.
- Integrate other control methods (chemical, cultural or biological) in weed control programmes.

For more information regarding resistance management contact the registration holder of this product.

MODE OF ACTION

4: AUXIN MIMICS

USE RESTRICTIONS

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.

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

The windspeed and direction at the time of application will determine the distance which must separate the closest edge of the area to be sprayed from susceptible crops:		
Windspeed km/h	**Aerial application**	**Ground application**
1.5 to 5 km	800 m downwind 800 m crosswind 15 m upwind	200 m downwind 200 m crosswind 6 m upwind
5 to 10 km	1 600m downwind 800 m crosswind 15 m upwind	400 m 200 m 1,5 m upwind
10 to 15 km	3,2 km downwind 800 m crosswind 15 m upwind	800 m downwind 400 m crosswind 1,5 m upwind
Above 15 km	Prohibited	Prohibited

DIRECTIONS FOR USE

Use only as directed.

Ground application

Avoid fine droplet size - use low-pressure flat fan nozzles of 80 degrees or equivalent anti-drift type, and do not exceed spray pressure of 200 kPa.

Spray volume must exceed 150 L/ha.

Do not exceed spray height of 50 cm above target and ground speed of 10km/h.

Do not apply if wind velocity exceeds 15 km/h (as measured by handheld wind recorder approved by the Registrar: Act 36 of 1947).

The difference between the wet and dry bulb readings on a whirling hygrometer must not exceed 8 °C.

Aerial application

Aerial spraying must be done by specialist applicators in compliance with requirements of Act 36 of 1947. Do not apply this product by air in KwaZulu-Natal.

The product can be applied aerially provided that the spray mixture is distributed evenly over the target area and the loss of spray material during application is restricted to a minimum.

To achieve this, it is essential that the following requirements be met:

- Apply before the crop becomes too dense, thus preventing proper coverage of the weeds.
- Use a conventional boom and nozzles equipped with flat fan tips.
- A minimum spray volume of 30 L spray mixture per ha must be applied and 30 to 45 droplets per cm^2 must be recovered on the target area.
- TH CV for droplet distribution must not exceed 40%.
- Employ a droplet spectrum with a VMD of 350 micron.
- The following flying heights must be maintained above the target area:

Wind speed	**Flying height**
0 to 8 km/h	3 m
9 to 15 km/h	2 m
More than 15 km/h	Do not spray

- The difference between the wet and dry bulb readings as determined by a whirling hygrometer, must not exceed 8˚ C.
- Do not spray during the heat of the day.
- Ensure that the fields are accurately marked and 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.

Pre-emergence application

To ensure a high percentage weed germination immediately after planting, plant the crop to a well-tilled, moist and weed free seedbed. Soil clods will affect weed control adversely. Do not apply under dry soil conditions or under cold conditions with or without frost. For control of annual grass weeds, apply the herbicide before the grasses emerge. Three to six weeks' control is usually obtained.

Post-emergence application

Spray when the crop is at a suitable stage of development as indicated below, when the weeds are in a young stage and soil is moist. Do not spray under cold conditions.

Mixing application

Mix the required amount of **ADAMA 2,4-D AMINE 480 SL** with water and apply evenly as a fine spray. The exact amount of water to be used will depend on the spray apparatus but should be within 200 to 400 L per ha for ground application and a minimum of 30 L per ha for aerial application.

CROP/SOIL TYPE	DOSAGE per ha	REMARKS
Maize **(pre-emergence)** <10 % clay	2.7 L	**Ground and aerial application.** Apply 5 to 6 days after planting. Rain before the maize emerges, especially on sandy oils, may leach **ADAMA 2, 4-D AMINE 480 SL** to seed level and cause drop damage. Where grass seedlings have emerged already, harrow before the application**.**
11 to 20 % clay	3.3 L	
21 to 35 % clay	4.3 L	
>35 % clay	5.4 L	
(post-emergence) After reaching a height of 30 to 45 cm	2.0 L	Use drop arms for directional spraying, so that the spray does not land in the funnel. *Striga asiatica* should be sprayed when first flowers are noticed. Maize may become brittle and malformed after application, but this is usually of temporary nature.
Grain sorghum (post-emergence)	2.0 L	**Ground and aerial application.** Apply when (post-emergence) plants are 15 to 25 cm high, about 3 weeks after emergence of the crop. Spray may be applied later provided directional spraying using drop arms is practiced.
Maize Weed (all soils)	0.75 L plus 2.0 L	**Ground application only.** This tank mix is recommended for broadleaf weed control,

CROP/SOIL TYPE	DOSAGE per ha	REMARKS
Grainsorghum (>15 % clay) (post-emergence)	atrazine 500 SC	except where atrazine has already been applied pre-emergence at full dosage rate. Spray on to actively growing weeds up to 10 cm high. If the crop is higher than 40 cm, directed spraying is recommended in order to achieve better wetting of the weeds. Do not apply under wet and cold conditions since the crop may then be adversely affected.
Wheat (post-emergence)	1.5 to 2.6 L	**Ground and aerial application.** Apply between the growth stages 7 (center or double ridges enlarged) and 13 (awn of the top spikelets elongated) according to the list of growth stages for wheat drawn up by the Centre for small grains, Bethelehem. Use the higher rate for severe weed infestation for weeds past the 4 leaf stage.
Barley and rye (post-emergence)	1.5 to 2.6 L	**Ground and aerial application.** Spray when the crop is 5 leaf stage. Use higher rate for severe weed infestation.
Potatoes (pre-emergence) < 20 % 21 – 35 % > 36 % clay	 2.6 L 3.5 L 4.5 L	 **Ground and aerial application.** If crop was dry planted, harrow immediately after first rain and plant.
Grass pastures and lawns	3.3 to 4.4 L	**Ground application only.** For lawns repeat applications may be necessary. Applications of nitrogenous fertilizer 2 to 3 weeks before spraying are recommended. Use the higher rate on severe weed infestations or less susceptible weed stages.
Sugarcane (pre-or post emergence)	5.25 to 7.25 L	**Ground and aerial application.** **a) Pre-emergence to plant and ratoon cane:** Apply before the weeds emerge. **b) Post-emergence:** The weeds should be still young. The treatment can cause cane damage and the danger of this occurring will be minimized if the applications are directed so as to avoid as far as possible the wetting of the cane leaves. If the cane exceeds a height of 40 cm or has

CROP/SOIL TYPE	DOSAGE per ha	REMARKS
		unfurled more than 5 leaves per shoot, directed spraying must be acarried out or else the growth may be retarded. Use the higher rate for severe weed infestation or for less susceptible weed stages.

SOME WEED SPECIES NORMALLY CONTROLLED	
Pre-and post emergence:	
Ageratum conyzoides	Blue weed
Amaranthus hybridus	Cape pigweed
Arctotis leiocarpa	Karoo daisy (early rosette stage)
Arctotis venusta	Free State daisy
Bidens bipinnata	Spanish blackjack
Bidens pilosa	Common blackjack
Cosmos bipinnatus	Cosmos
Chenopodium album	White goosefoot
Commelina benghalensis	Benghal wandering Jew
Galinsoga parviflora	Small-flowered quick weed
Portulaca oleracea	Purslane
Raphanus raphanistrum	Wild radish
Tagetes minuta	Tall khaki weed
Vicia hirsuta	Tiny purple vetch
Vicia sativa	Broad-leaved purple vetch
Pre-emergence only:	
Brachiaria eruciformis	Sweet signal grass
Eleusine indica	Goose grass
Panicum schinzii	Vlei Panicum (early germinating)

SOME WEED SPECIES NORMALLY CONTROLLED	
Setaria verticillata	Bur bristle grass
Sorghum verticilliflorum	Common wild Sorghum
Post-emergence only:	
Datura ferox*	Large thorn apple
Datura stramonium*	Thorn apple
Polygonum aviculare	Prostrate knotweed
Striga asiatica	Witchweed
Tribulus terrestris	Common dubbeltjie
Xanthium strumarium	Cocklebur
*in the 2 to 3 leaf stage	