



NICANOR® 50 WP

Reg. no. L6583 Act/Wet 36 of/van 1947

A wettable powder post-emergence herbicide for the control of annual broadleaf weeds as listed in wheat and barley in the winter rainfall areas, as well as control of *Eucalyptus* stumps and American bramble in conservation areas and pastures.

'n Benatbare poeier naopkomsonkruiddoder vir die beheer van eenjarige breeblaaronkruide soos aangedui in koring en gars in die winterreënvalgebiede asook die beheer van *Eucalyptus*-stompe en Amerikaanse braam in bewaringsgebiede en weidings.

HRAC HERBICIDE GROUP CODE

B

HRAC ONKRUIDDODERGROEPKODE

ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL

metsulfuron-methyl (sulfonylurea) 500 g/kg metsulfuron-metiel (sulfonielureum)

NET WEIGHT/NETTO GEWIG

..... kg

REGISTRATION HOLDER/REGISTRASIEHOUER

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Reg. no. 1992/001741/07

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NICANOR® is the registered trademark of a company of the ADAMA GROUP.
NICANOR® is die geregistreerde handelsmerk van 'n maatskappy van die ADAMA GROEP.

CONTACT IN EMERGENCY/KONTAK IN NOOD

Griffon Poison Information Centre: +27 82 446 8946

Batch number

.....

Lotnommer

Date of manufacture

.....

Datum van vervaardiging

UN no.: 3077



WARNINGS

- Store in a cool, dry place away from food and feed.
- The product may be irritating to eyes, nose, throat and skin.
- Keep out of reach of children, uninformed persons and animals.
- Where lengthy cold and wet periods after application prevail, yellowing of the leaves of the crop plants and even temporarily retarded growth may occur.
- To prevent damage to the crop the dosage rate should not be exceeded and the recommended application timing should be adhered to.
- **Aerial application:** Notify all the inhabitants in the immediate vicinity of the area to be sprayed and issue the necessary 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 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 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 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 or registration holder in the event of any uncertainty.

PRECAUTIONS

- Do not eat, drink or smoke while handling the product or before washing hands and face.
- Avoid contamination of food, feed, drinking water and eating utensils.
- Do not inhale dust, wear rubber gloves and face shield while mixing.
- Avoid skin contact.
- Wash contaminated clothing after use with soap and water.
- Avoid spray drift onto susceptible crops, rivers, dams and areas not under treatment.
- **To avoid damage to susceptible crops, the applicator and mixing tanks must be cleaned out immediately after use as follows:**

Drain the system completely. Flush system with clean water and spray wash water out on treated field. Drain system again. Fill tank to approximately 25 % of its capacity and add 1.0 l sodium hypochlorite (5,2 % solution) to every 200 l water. Circulate the solution through the spray system for at least 10 minutes. Spray solution through nozzles for at least 1 minute. Drain the system. Rinse the spray system with clean water to remove traces of the bleaching agent. Destroy empty container and never re-use for any other purpose.

RESISTANCE WARNING

The continuous use of herbicides which have the same mode of action, and are used in the same area, might lead to the selection of resistant weed species in a natural occurring weed population. Because these resistant species are not controlled effectively, it will propagate and eventually dominate the weed population. A weed species is resistant to a herbicide if it survives a treatment which was carried out correctly at the recommended dosage rate and application timing. Resistance of certain weed species against the sulfonyl-ureas has been confirmed. It is important to note that if

a weed species is resistant to one sulfonyl-urea herbicides it will be resistant to all the sulfonyl-urea herbicides. To avoid the development of resistance against **NICANOR® 50 WP**, it should be alternated with products with a different mode of action or by using it in a mixture with a non-related product.

Since it is not possible to detect a resistant weed species before application of **NICANOR® 50 WP**, ADAMA South Africa (Pty) Ltd does not accept any responsibility for non-performance or any losses that may result from the application of **NICANOR® 50 WP** to resistant weed species.

USE RESTRICTIONS

Wheat and barley

- No other crop except wheat, barley and oats should be planted within 10 months in any area treated with **NICANOR® 50 WP**. Wheat can be planted within one month and barley and oats can be planted within six months after a **NICANOR® 50 WP** application.
- On soils with a pH (water) of 7.0 and more, or soils that contain free lime, longer residual activity could occur, which may cause damage to follow-on crops.
- **NICANOR® 50 WP** has a limited residual activity in the soil on germinating weeds.
- **NICANOR® 50 WP** must not be applied to cereals under sown with legumes.
- Do not apply **NICANOR® 50 WP** to cereals under stress caused by heat, drought, water logging, disease, insect damage, nutrient deficiencies, etc.
- Unused spray mixtures must never be kept overnight.

Conservation areas and pastures

- No crop should be planted within 10 months after the last **NICANOR® 50 WP** application.
- Unused spray mixture should under no circumstances be kept overnight.
- Use only high quality water with a pH of not more than 7.0. It is recommended to use a suitable buffer solution to rectify the water pH should it be more than 7.0.

DIRECTIONS FOR USE

Use only as indicated.

General

NICANOR® 50 WP must be applied post-emergence of the crop and weeds. The crop and the weeds should not have been developed beyond the 3- to 5-leaf stage at time of application in wheat and barley. Best control will be obtained when weeds are growing actively. A suitable adjuvant must be added to the spray mixture as recommended in the application tables.

Mixing instructions

- Half fill the spray tank with clean water.
- Mix the required amount of **NICANOR® 50 WP** separately in a small amount of water and add to the spray tank while agitating.
- Flush the mixing container thoroughly and add rinsing to tank.
- Fill the tank with clean water while agitating.

- Add the required volume of adjuvant and ensure thorough mixing by agitating the contents of the spray tank.
- Prepare only sufficient spray mixture for immediate use.

APPLICATION

Wheat and barley

Ground application

Application can be done by any medium or high volume tractor mounted boom sprayer which is fitted with an efficient agitator and which is capable to deliver an even distribution over the target area. The applicator must be correctly calibrated to deliver at least 200 l spray mixture/ha. Avoid overlapping of spray swaths.

Aerial application

NICANOR® 50 WP can be applied aerially provided the spray material is distributed evenly over the target area and that spray drift is limited to a minimum. To achieve this, the following conditions must be adhered to:

- Use a conventional boom fitted with flat fan nozzles, e.g. SS 6515 or similar.
- A minimum of 30 l spray mixture/ha must be applied.
- A minimum of 30 to 45 droplets/cm² must be recovered on the target area.
- A droplet spectrum with a VMD of 350 micron must be used.
- A flying height of 3 m above the target area should be maintained at wind speeds of 0–8 km/h and 2 m at wind speeds of 8–15 km/h. Stop spraying when wind speed exceeds 15 km/h.
- The difference between the readings of the wet and dry bulbs, as determined by a whirling hygrometer, should not exceed 8 °C.
- Do not spray during the heat of the day.
- Ensure that the fields to be sprayed are accurately marked.
- It is essential to get an assurance from the spray operator that all above mentioned conditions will be adhered to.

Conservation areas and pastures

Apply as a full cover spray on actively growing plants. Ensure thorough wetting of all plant parts to the point of run-off. Avoid run-off onto the soil. Application can be done by knapsack sprayer or any other suitable sprayer fitted with a solid cone nozzle and operated at a constant pressure of 200–250 kPa. Do not spray over desired plants and trees. Avoid spray drift onto trees or leaves or any other part of desired plants. It is essential that a suitable adjuvant based on a mineral oil should be used.

APPLICATION RATES

Wheat and barley

CROP AND TARGET	DOSAGE RATE (g/ha)	REMARKS
Wheat, barley Ground and aerial application Winter rainfall area only	Ground application 4.0–5.0 g + 0.01 % spreader Aerial application 4.0–5.0 g + 0.05 % spreader	Apply NICANOR® 50 WP as a post-emergence spray when weeds and crop are growing actively. At application, the crop should be in the 4- to 5-leaf stage. Apply the higher rate where <i>Emex australis</i> , <i>Fumaria muralis</i> and <i>Raphanus raphanistrum</i> are a problem or where weed growth stage exceeds the 3-leaf stage or where soil moisture conditions are deteriorating. Refer to the Table " WEEDS CONTROLLED IN CEREALS " below.

Conservation areas and pastures

SPECIES OR TARGET	DOSAGE RATE (g/ha)	REMARKS
<i>Eucalyptus</i> coppice (<i>Eucalyptus grandis</i>)	96 g/100 l water + 500 ml mineral oil adjuvant/100 l spray mixture	Apply to actively growing coppice between 0.5–2.0 m high. Do not apply when plants are subjected to stress conditions, such as low temperatures, drought. Ensure thorough wetting of all plant parts, but avoid run-off onto the soil. Should regrowth occur, it should be treated by a spot-spray application.
<i>Eucalyptus</i> cut stump (<i>Eucalyptus grandis</i>)	216 g/100 l water + 500 ml mineral oil adjuvant/100 l spray mixture	A directed application to the cambium layer of the stumps should be made directly after felling, but definitely within two hours thereafter. Efficacy will be reduced if application is made more than two hours after felling. Apply 15–20 ml spray mixture for every 10 cm stump diameter measured at ground level. For multi-stem trees a minimum of 15 ml spray mixture must be used for every 10 cm stem diameter, as measured at ground level. A knapsack sprayer or dosing gun can be used for application. Avoid run-off onto the soil.

SPECIES OR TARGET	DOSAGE RATE (g/ha)	REMARKS
American bramble <i>(Rubus cuneifolius)</i>	30 g/100 l water + 500 ml mineral oil adjuvant/100 l spray mixture.	Apply to the leaves and canes of actively growing plants during the latter part of summer. A follow-up spot treatment might be necessary for up to three years after the initial treatment if regrowth occurs. Application can be done by knapsack or any other suitable applicator.

WEEDS CONTROLLED IN CEREALS

BOTANICAL NAME	COMMON NAME
<i>Anagallis arvensis</i>	Pimpernel
<i>Chenopodium album</i>	White goosefoot
<i>Emex australis</i> *	Spiny Emex
<i>Fumaria muralis</i> *	Fumitory
<i>Oxalis latifolia</i> *	Red garden sorrel
<i>Raphanus raphanistrum</i>	Wild radish
<i>Stellaria media</i>	Chickweed

*Weeds suppressed

WAARSKUWINGS

- Bewaar in 'n koel, droë plek weg van voedsel en voer.
- Die produk mag irriterend wees vir oë, neus, keel en vel.
- Hou buite bereik van kinders, oningesigte persone en diere.
- Waar langdurige koue en nat toestande na toediening voorkom, vergeling van die blare van die gewas of selfs tydelike verdwering daarvan, voorkom.
- Om moontlike beskadiging van die gewas te voorkom, moet die toedieningshoeveelheid nie oorskry word nie. Daar moet ook by die voorgeskrewe toedieningstyd gehou word.
- **Lugtoediening:** Stel alle inwoners in die onmiddellike omgewing van die gebied wat bespuit gaan word in kennis en reik die nodige waarskuwings uit. Moet nie oor water of aangrensende gebiede sput of die sputnewel toelaat om dit te besoedel nie.

Alhoewel hierdie middel omvattend onder 'n groot verskeidenheid toestande getoets is, waarborg die registrasiehouer nie dat dit onder alle toestande doeltreffend sal wees nie, aangesien die werking en effek daarvan beïnvloed kan word deur faktore soos abnormale grond-, klimaats- en bergingstoestande, kwaliteit van verdunningswater, verenigbaarheid met ander stowwe wat nie op die etiket aangedui is nie en die voorkoms van weerstand van die onkruid teen die betrokke middel sowel as die metode, tyd en akkuraatheid van toediening. Verder aanvaar die registrasiehouer nie verantwoordelikheid vir skade aan gewasse, plantegroei, die omgewing of vir nadelige effek op mens of dier of vir 'n gebrek aan prestasie van die betrokke middel as gevolg van die versuum van die gebruiker om etiketaanwysings na te kom of as gevolg van die ontstaan van toestande wat nie kragtens die registrasie voorsien kon word nie. Raadpleeg die verskaffer in geval van enige onsekerheid.

VOORSORGMAATREËLS

- Moet nie eet, drink of rook tydens hantering van die produk of voordat hande en gesig gewas is nie.
- Voorkom besoedeling van voedsel, voer, drinkwater en eetgerei.
- Vermy inaseming van stof, dra rubberhandskoene en gesigskerm tydens vermening.
- Vermy kontak met die vel.
- Was besoedelde klere na gebruik met seep en water.
- Verhoed oorwaai van sputnewel na gevoelige gewasse, riviere, damme en gebiede wat nie onder behandeling is nie.
- **Om skade aan gevoelige gewasse te voorkom, moet die sput- en mengtenk onmiddellik na gebruik soos volg skoon gemaak word:**

Dreineer die hele spuitsisteem. Spoel die spuitsisteem met skoon water en sput oor die behandelde land uit. Dreineer die spuitsisteem weer. Vul die sputtentk tot ongeveer 25 % van die kapasiteit. Voeg 1.0 ℥ natriumhipochloriet (5.2 % oplossing) by vir elke 200 ℥ water. Sirkuleer die oplossing deur die sisteem vir ten minste 10 minute. Sput die oplossing deur die sputpunte vir ongeveer 1 minuut. Dreineer die sisteem. Spoel die spuitsisteem met skoon water uit om al die reste van die bleikmiddel uit te was. Vernietig die leë houer en moet dit vir geen ander doel gebruik nie.

WEERSTANDSWAARSKUWING

Die aanhoudende gebruik van onkruiddoders wat dieselfde wyse van werking het en in dieselfde gebied gebruik word, mag tot die seleksie van weerstandbiedende onkruidspesies in 'n natuurlike onkruidpopulasie lei. Omdat hierdie weerstandbiedende onkruidspesies nie doeltreffend beheer

word nie, vermeerder hulle vinnig wat aanleiding gee tot dominante spesies. 'n Onkruidspesie kan as weerstandbiedend beskou word as dit 'n behandeling wat op die regte wyse uitgevoer is, waar die regte toedieningshoeveelheid en toedieningstyd toegepas is, oorleef. Weerstandbiedendheid van sekere onkruidspesies teen die sulfonielureums is bevestig. Dit is baie belangrik om daarop te let dat as 'n onkruidspesie weerstandbiedend is teen een sulfonielureum-onkruiddoder, dit weerstandbiedend sal wees teen alle sulfonielureum-onkruiddoders. Om die ontwikkeling van weerstandbiedende onkruide teen **NICANOR® 50 WP** te verhoed, moet 'n onkruiddoder met 'n ander wyse van werking daarmee afgewissel word of dit moet in 'n mengsel met 'n nie-verwante middel gebruik word.

Aangesien dit onmoontlik is om te bepaal of 'n onkruidspesie weerstandbiedend gaan wees voordat **NICANOR® 50 WP** toegedien word, aanvaar ADAMA South Africa (Pty.) Ltd. geen verantwoordelikheid vir enige verliese of skade wat mag ontstaan as gevolg van weerstandbiedendheid van onkruidspesies teen **NICANOR® 50 WP** nie.

GEBRUIKSBEPERKINGS

Koring en gars

- Geen ander gewas behalwe koring, gars en hawer moet binne 10 maande op enige grond wat met **NICANOR® 50 WP** behandel is, geplant word nie. Koring kan binne een maand en gars kan binne ses maande na 'n **NICANOR® 50 WP** toediening aangeplant word.
- Op gronde wat 'n pH (water) van 7.0 of meer het, of waar vry kalk voorkom, kan 'n langer grondresiduele werking voorkom, wat opvolgewasse kan beskadig.
- **NICANOR® 50 WP** het 'n beperkte nawerking in die grond op ontkiemende onkruide.
- **NICANOR® 50 WP** moet nie in kleingraan, ondersaai met peulgewasse, toegedien word nie.
- **NICANOR® 50 WP** moet nie in kleingrane wat aan stremmingstoestande, soos wat veroorsaak word deur hitte, droogte, versuipingstoestande, plae, insekskade, voedingstekorte, ens, onderhewig is, toegedien word nie.
- Ongebruikte sputtmengsels moet nooit oornag laat staan word nie.

Bewaringsgebiede en weiveld

- Geen ander gewas moet binne 10 maande na die laaste toediening van **NICANOR® 50 WP** aangeplant word nie.
- Ongebruikte sputtmengsel moet onder geen omstandighede oornag laat staan word nie.
- Gebruik slegs water van 'n hoë kwaliteit met 'n pH van nie meer as 7.0 nie. Die gebruik van 'n gesikte buffer om die pH reg te stel indien dit meer as 7.0 is, word aanbeveel.

GEBRUIKSAANWYSINGS

Gebruik slegs soos aangedui.

Algemeen

NICANOR® 50 WP moet na-opkoms van die gewas en onkruide toegedien word. In koring en gars moet die gewas en die onkruide nie verder as die 3- tot 5-blaarstadium ontwikkel het tydens toediening nie. Die beste beheer sal verkry word wanneer onkruide aktief groei. 'n Gesikte hulpmiddel moet by die sputtmengsel gevoeg word soos aanbeveel in die toedieningstabellle.

Menginstruksies

- Maak die sputtenk halfvol met skoon water.
- Meng die benodigde hoeveelheid **NICANOR® 50 WP** apart in 'n klein hoeveelheid water en voeg in die tenk terwyl geroer word.
- Spoel die menghouer deeglik uit en voeg die spoelwater in die tenk.
- Maak die tenk vol met skoon water terwyl geroer word.
- Voeg die benodigde hoeveelheid hulpmiddel in die tenk en meng deeglik deur die inhoud van die sputtenk te roe.
- Maak net genoeg sputtmengsel aan vir onmiddellike gebruik.

TOEDIENING

Koring en gars

Grondtoediening

NICANOR® 50 WP kan met enige medium- of hoë-volume trekkergemonteerde sput toegedien word wat met 'n doeltreffende roermeganisme toegerus is en wat in staat is om goeie bedekking te verseker en 'n eweredige verspreiding sal lewer. Die toediening moet korrek gekalibreer wees en in staat wees om ten minste 200 ℥ sputtmengsel/ha te lewer. Verhoed dat sputbane oorvleuel.

Lugtoediening

NICANOR® 50 WP kan deur middel van lugbespuiting toegedien word mits die sputtmengsel eweredig oor die teikengebied versprei word en wegdrywing van die sputnewel tot 'n minimum beperk word. Om aan hierdie vereistes te voldoen moet die volgende voorwaardes nagekom word:

- Gebruik 'n konvensionele sputtbalk toegerus met platwaaierspuitpunte soos byvoorbeeld SS 6515 of soortgelyk.
- 'n Minimum van 30 ℥ sputtmengsel/ha moet toegedien word.
- 'n Minimum van 30–45 druppels/cm² moet op die teikengebied herwin word.
- 'n Druppelspektrum met 'n VMD van 350 mikron moet gebruik word.
- 'n Vlieghoogte van 3 m bokant die teikengebied moet gehandhaaf word by windsnelhede van 0–8 km/h en 2 m by windsnelhede van 8–15 km/h. Bespuiting moet gestaak word as windsnelhede 15 km/h oorskry.
- Die verskil tussen die lesings van die nat- en droëboltermometer, soos bepaal deur 'n swaaihigrometer, moet nie 8 °C oorskry nie.
- Moet nie gedurende die hitte van die dag sput nie.
- Maak seker dat die lande wat bespuit gaan word akkuraat gemerk is.
- Dit is noodsaaklik om versekering van die spuitoperator te verkry dat aan bogenoemde voorwaardes voldoen sal word.

Bewaringsgebiede en weiveld

Dien toe as 'n volle dekbespuiting op aktiefgroeiende plante. Verseker dat alle plantdele deeglik benat word tot by die punt van afloop. Verhoed afloop tot op die grond. Toediening kan deur middel van 'n rugsakspuit of enige ander geskikte spuitapparaat wat toegerus is met 'n soliede keëlsputpunt, toegedien word. Handhaaf 'n konstante druk van tussen 200–250 kPa. Moet nie oor gewenste plante en bome sput nie. Vermy oorwaai van sputnewel na blare en ander dele van

gewenste plante. Dit is noodsaklik dat 'n geskikte hulpmiddel wat op 'n minerale olie gebaseer is tydens bespuiting gebruik word.

TOEDIENINGSHOEVEELHEDE

Koring en gars

GEWAS	DOSIS (g/ha)	OPMERKINGS
Koring en gars Grond- en lugtoediening Slegs winterreënvalgebied	Grondtoediening 4.0–5.0 g + 0.01 % verspreidingsmiddel Lugtoediening 4.0–5.0 g + 0.05 % verspreidingsmiddel	Dien NICANOR® 50 WP toe as 'n napombespuiting as die onkruid en die gewas aktief groei. Tydens toediening moet die gewas in die 4-tot 5-blaarstadium wees. Dien die hoër dosis toe waar <i>Emex australis</i> , <i>Fumaria muralis</i> en <i>Raphanus raphanistrum</i> 'n probleem is of waar die onkruidstadium die 3-blaarstadium oorskry of waar grondvogtoestande versleg. Verwys na Tabel " ONKRUIDE BEHEER IN KLEINGRAAN ".

Bewaringsgebiede en weiveld

SPESIE OF TEIKEN	DOSIS (g/ha)	OPMERKINGS
<i>Eucalyptus</i> hergroei (<i>Eucalyptus grandis</i>)	96 g/100 ℥ water + 500 mL minerale olie hulpmiddel/100 ℥ spuitmengsel	Dien toe op aktiefgroeiente hergroei tussen 0.5–2.0 m hoog. Moet nie toedien as hergroei onderhewig is aan stremmingstoestande soos veroorsaak deur koue of droogte nie. Verseker dat alle plantdele deeglik benat word, sonder enige afloop op die grond. Indien hergroei voorkom, moet dit deur middel van 'n kolbespuiting beheer word.
<i>Eucalyptus</i> gesaagde stompe (<i>Eucalyptus grandis</i>)	216 g/100 ℥ water + 500 mL minerale olie hulpmiddel/100 ℥ spuitmengsel	'n Gerigte bespuiting moet op die kambium van die afgesaagde stomp gemaak word. Toediening moet verkieslik onmiddellik gedoen word, maar definitief binne twee uur na boom afgesaag is. Effektiwiteit sal verlaag as die toediening geskied later as twee ure na die boom afgesaag is. Dien 15–20 mL spuitmengsel toe vir elke 10 cm stamdeursnee, soos op die grondoppervlak gemeet. In die geval van meerstammige bome moet 15 mL spuitmengsel vir elke 10 cm stamdeursnee soos op grondoppervlak gemeet, toegedien word. 'n Rugsak- of doseerspuit kan

SPESIE OF TEIKEN	DOSIS (g/ha)	OPMERKINGS
		vir hierdie doel gebruik word. Verhoed afloop tot op die grond.
Amerikaanse braam <i>(Rubus cuneifolius)</i>	30 g/100 ℥ water + 500 mL minerale olie hulpmiddel/100 ℥ spuitmengsel	Dien toe op die blare en lote van aktiefgroeiende plante in die laatsomer. 'n Opvolg kolbespuiting kan tot drie jaar na die aanvanklike bespuiting nodig wees indien hergroei voorkom. 'n Rugsakspuit of enige ander geskikte toediener kan gebruik word vir die toediening.

ONKRUIDE BEHEER IN KLEINGRAAN

BOTANIESE NAAM	GEWONE NAAM
<i>Anagallis arvensis</i>	Pimpernel (Blouselblommetjie)
<i>Chenopodium album</i>	Withondebossie
<i>Emex australis*</i>	Kaapse dubbeltjie
<i>Fumaria muralis*</i>	Duiwekerwel
<i>Oxalis latifolia*</i>	Rooituisuring
<i>Raphanus raphanistrum</i>	Ramenas
<i>Stellaria media</i>	Sterremuur

*Onkruid wat onderdruk word.