

Arsenal[®] GEN 2

Reg. No.: L8817

Act No. 36 of 1947

**READ ATTACHED PACKAGE OR LEAFLET BEFORE USE
KEEP OUT OF REACH OF CHILDREN AND ANIMALS**

GROUP	2	HERBICIDE
-------	---	-----------

A non-selective systemic herbicide solution with residual activity for the control of annual and perennial weeds as listed, for use in industrial areas and servitudes.

'n Nie-selektiewe sistemiese-onkruidoderoeplossing, met nawerking vir die beheer van een- en meerjarige onkruid soos aangetoon, vir die gebruik in industriële gebiede en servitute.

Hazard Statements:

May cause an allergic skin reaction.

Precautionary Statements:

Wear protective gloves.

Avoid breathing mist or vapour or spray.

WARNING



Active ingredient / Aktiewe bestanddeel:

Imazapyr (imidazolinone)..... 240 g/l

Registered by

BASF South Africa (Pty) Ltd.
Co. Reg. No. 66/10235/07
P.O. Box 2801
Halfway House 1685
+27 11 203 2400

Geregistreer deur:

BASF Suid-Afrika (Edms) Bpk.
Mpy Reg. Nr 66/10235/07
Posbus 2801
Halfweghuis 1685
+27 11 203 2400

Batch No: & Date Manufactured: Refer details printed on container
Lotnommer & Datum vervaardig Verwys na besonderhede gedruk op houer

EMERGENCY NUMBER / NOODNOMMER +27 82 446 8946



© = Registered trademark of BASF / Geregistreerde handelsmerk van BASF

10 l

81080021ZA1093

81067266 NVA 2023-05-0295-0289

WARNINGS

Hazard Statement

- May cause an allergic skin reaction.
- Poisonous by swallowing.
- Toxic to aquatic plants.
- Store in a cool dry place, away from food and feed.
- Keep out of reach of children, unqualified personnel and animals.

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 weed 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 in the event of any uncertainty.

PRECAUTIONS

Precautionary Statements

- If medical advice is needed, have product container or label at hand.
- Keep out of reach of children.
- Read carefully and follow all instructions.
- Wear protective gloves.
- Avoid breathing mist or vapour or spray.
- Contaminated work clothing should not be allowed out of the workplace.
- IF ON SKIN: Wash with plenty of soap and water.
- If skin irritation or rash occurs: Get medical attention.
- Take off contaminated clothing and wash it before reuse.
- Dispose of contents and container to hazardous or special waste collection point.
- Wear rubber gloves and boots, overall and face shield when handling concentrate and whilst applying.
- Do not eat, drink, or smoke while mixing or spraying.

- Avoid spray drift onto other crops, grazing, rivers, dams and any area not under treatment.
- Mildly corrosive – thoroughly wash and rinse spray equipment after use and dispose of wash water where it will not contaminate crops, grazing, rivers and dams.
- 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 container three times with a volume of water equal to a minimum of 10 % of that of the container.
- Add the rinsings to the contents of the spray tank before destroying the container by perforation, flattening and burying, and never re-use for any other purpose.
- Prevent contamination of food, feeds, drinking water and eating utensils.
- Avoid overlapping spray swaths.

RELEVANT SUBSTANCES

Hazardous ingredients According to UN GHS criteria	CAS number	Concentration (w/w)
imazapyr (ISO); 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-3-pyridine carboxylate	81334-34-1	21,82 %
Oxirane, methyl-, polymer with oxirane, mono-C10-16-alkyl ethers, phosphates	68649-29-6	< 25 %
Isopropylamine	75-31-0	< 15 %
Orthophosphoric acid	7664-38-2	< 10 %
Propane-1,2-diol	57-55-6	< 5 %

FIRST AID TREATMENT

Remove contaminated clothing.

ON CONTACT WITH EYES:	Wash affected eyes for at least 15 minutes under running water with eyelids held open.
ON INGESTION:	Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.
ON SKIN CONTACT:	Wash thoroughly with soap and water.
IF INHALED:	Keep patient calm, remove to fresh air, seek medical attention.

Indication of any immediate medical attention and special treatment needed

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

USE RESTRICTIONS

- Do not apply **Arsenal® GEN 2** to, or within, the root zone of desirable vegetation.
- To avoid injury to desirable trees, do not apply **Arsenal® GEN 2** within twice the drip line (tree canopy).
- Avoid spray drift onto desirable vegetation, or non-target areas.
- Use suitably shielded nozzles.
- Avoid overlapping spray swaths.

RESISTANCE WARNING

Arsenal® GEN 2 is a member of the imidazolinone group of herbicides. The mode of action of this group is primarily the inhibition of the acetolactate synthase (ALS) enzyme, and as such it is classified by HRAC as a Group Code 2 herbicide.

Certain naturally-occurring weed biotypes resistant to **Arsenal® GEN 2** and other ALS inhibiting herbicides, may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the weed population, if this group of herbicides are used repeatedly. These resistant weeds will not be controlled by **Arsenal® GEN 2** and are unlikely to be controlled by other herbicides, which inhibit the ALS enzyme.

Since the presence of resistant weeds is difficult to detect, prior to herbicide application, it is of the utmost importance that treated areas be inspected at regular

intervals, to timeously identify the occurrence of herbicide-resistant weeds. **BASF SA (Pty) Ltd** will not accept liability for performance failures in the event of a build-up of resistant weeds, resulting from inadequate resistance management practices.

To delay herbicide resistance:

- **Avoid exclusive, repeated use of herbicides from the same Herbicide Group Code. Integrate other control methods (chemical, cultural, biological) into weed control programmes.**

FOR SPECIFIC INFORMATION ON RESISTANCE MANAGEMENT, CONTACT THE REGISTRATION HOLDER, BASF SA (Pty) Ltd.

DIRECTIONS FOR USE:

USE ONLY AS DIRECTED

General information:

- **Arsenal® GEN 2** is a broad-spectrum, non-selective herbicide, for the control of grasses, broadleaf weeds and sedges.
- **Arsenal® GEN 2** possesses both pre-emergent and post-emergent activity, with a long residual activity, but is most effective when applied post-emergent to actively growing plants.
- **Arsenal® GEN 2** is readily absorbed through the foliage and roots and is rapidly translocated to the meristematic regions of the plant, where it inhibits plant growth.
- Rain, two hours after application, will not reduce efficacy.
- Plant growth is arrested shortly after application, but complete control of the treated plants is slow, especially under dry conditions. Complete control could take up to eight weeks.
- **Arsenal® GEN 2** can be applied either by knapsack or tractor mounted sprayers.
- Use good quality spray water.
- The residual efficacy of **Arsenal® GEN 2** is related to the susceptibility of plant species, soil moisture, soil pH and dosage applied. It can vary from three months (under wet conditions), to more than nine months (under dry conditions).

Compatibility:

- **Arsenal® GEN 2** may be used in a tank mix with a registered, anti-drift agent.
- **Arsenal® GEN 2** is compatible with glyphosate.

When **Arsenal® GEN 2** is used in conjunction with any other agrochemical, full cognisance must be taken of all **WARNINGS, PRECAUTIONS** and **DIRECTIONS FOR USE** mentioned on those labels.

Mixing instructions:

Three-quarter fill the spray tank with clean water. Shake the **Arsenal® GEN 2** container well and measure the required volume and pre-mix this with at least 10 ℓ water before adding to the spray tank. If any other product is to be mixed with **Arsenal® GEN 2** (e.g. glyphosate), pre-mix the required volume of product in similar fashion. Fill the spray tank with water to the required level, while maintaining agitation, to ensure thorough mixing. The prepared spray mixture must not be left in the spray tank for any length of time, e.g. overnight.

All spray applications must be made with suitable equipment, that is in good working order and correctly calibrated, to give the desired coverage for that particular method of application.

APPLICATION TIMING WHEN USED FOR SUGARCANE ERADICATION AND WEED CONTROL

- Apply **Arsenal® GEN 2** after harvesting the final ratoon and once re-growth of the sugarcane and weeds has occurred.
- Application should occur when sugarcane is 30 - 45 cm tall, fully emerged and actively growing. A useful guide is seen below.

AVERAGE NUMBER OF DAYS TO REACH KNEE HEIGHT		
REGION	CANE HARVESTED IN MID-AUGUST	CANE HARVESTED IN MID-DECEMBER
Coastal	60	35
Midlands	80	48
Lowveld	50	32

- Both sugarcane and weeds should be actively growing at the time of application and not wilted or stressed.
- Weeds should not be shielded by the sugarcane canopy.
- Ensure proper coverage of the target with the spray solution.

TABLE 1 CONTROL OF WEEDS IN SUGARCANE AND ON SERVITUDE AREAS

CROP	TARGET	DOSAGE / Ha	DIRECTIONS FOR APPLICATION
SUGARCANE	Final ratoon eradication	5,2 ℓ Arsenal® GEN 2	Apply as a full cover spray to actively growing weeds and re-growth of the last ratoon, using a minimum of 300 ℓ water / ha, to ensure proper coverage of the target. NB: refer to USE RESTRICTIONS, RESISTANCE WARNING, DIRECTIONS FOR USE, APPLICATION TIMING, and IMPORTANT NOTES.
	Grasses, Sedges and Broadleaf weeds (as listed in TABLES 2, 3 & 4 below)		
SERVITUDE AREAS (Verges and breaks)	Grasses, Sedges and Broadleaf weeds (as listed in TABLES 2, 3 & 4 below)	5,2 ℓ Arsenal® GEN 2	Apply only once per season. Apply as a full cover spray to actively growing weeds, using a minimum of 300 ℓ water / ha, to ensure proper coverage of the target.

IMPORTANT NOTES

(ALSO SEE RESISTANCE WARNING)

A. WAITING PERIOD PRIOR TO REPLANTING SUGARCANE

- After the application of **Arsenal® GEN 2**, sugarcane can **ONLY** be replanted after a minimum waiting period of at least four months **AND** after the occurrence of at least 600 mm precipitation (preferably rain), during the warmer months of the year.

B. EFFICACY

- Application to stressed plants will result in reduced efficacy. Factors contributing to stress include: drought, disease, pests, waterlogging, etc. Ensure application is to actively growing plants.
- Canopy formation, resulting in the shading of weeds from the application, will result in reduced efficacy. Ensure the correct timing of application and utilise hollow cone nozzles to ensure target coverage.
- Any mechanical soil operation, prior to the application of **Arsenal® GEN 2**, that results in clods on the soil surface (e.g. ripping), will result in reduced efficacy.
- Any mechanical operation, resulting in soil disturbance subsequent to the application of **Arsenal® GEN 2**, will impair the residual efficacy of the product.
- Frequent and / or heavy rainfall incidences, may reduce the residual efficacy of **Arsenal® GEN 2**, especially on sandy soils.

C. FOLLOW-UP APPLICATIONS

- Do not apply **Arsenal® GEN 2** more than once in a normal replant cycle.
- Due to the biological variables encountered in agriculture, regrowth from sugarcane stools and weeds may occur. This and any “missed” patches should be managed with spot treatment(s) of glyphosate at the registered rate (refer to the applicable label), subsequent to the application of **Arsenal® GEN 2**.

D. PERSISTENCE

- The rate of degradation of **Arsenal® GEN 2** in the soil increases, as the soil pH increases. Persistence is greater on low pH (acid) soils (pH < 6.0).
- The soil degradation of **Arsenal® GEN 2** is primarily due to naturally occurring soil micro-organisms.
- Alteration of soil pH through liming, can result in an additional release of **Arsenal® GEN 2** from clay colloids. This will temporarily elevate the available concentration in the soil, until degradation by the soil micro-organisms occurs.
- Planting too soon after liming, may therefore result in damage to the newly planted crop. Allow at least 12 weeks between liming and replant. A test planting with single-eye setts, is always advisable.
- Once the sugarcane is planted, normal irrigation will accelerate the degradation of remaining residues.
- Initial leaf scorch may be observed on young sugarcane, under certain stress conditions (e.g. drought periods) and with certain varieties, that may be more sensitive than others, to imidazolinone herbicides. The crop should outgrow this over time, with no effect on yield.

Arsenal® GEN 2 will control most commonly occurring broadleaf weeds, grasses and sedges.

TABLE 2. GRASSES CONTROLLED BY Arsenal® GEN 2

BOTANICAL NAME	COMMON NAME
<i>Cynodon dactylon</i>	Common couch grass
<i>Cynodon nlemfuensis</i>	Star grass
<i>Digitaria abyssinica</i>	Mapstone grass
<i>Digitaria sanguinalis</i>	Crab finger grass
<i>Eleusine coracana</i>	Goose grass
<i>Hyparrhenia hirta</i>	Common thatchgrass
<i>Panicum maximum</i>	Guinea grass
<i>Paspalum dilatatum</i>	Common paspalum
<i>Paspalum distichum</i>	Couch paspalum
<i>Paspalum urvillei</i>	Tall paspalum
<i>Pennisetum clandestinum</i>	Kikuyu
<i>Melinis repens</i>	Natal redtop
<i>Sorghum halepense</i>	Johnson grass
* <i>Sporobolus africanus</i>	*Ratstail dropseed
<i>Themeda triandra</i>	Red grass
<i>Urochloa panicoides</i>	Herringbone grass

* Control of these species, is variable.

TABLE 3. BROADLEAF WEEDS CONTROLLED BY Arsenal® GEN 2

BOTANICAL NAME	COMMON NAME
<i>Asclepias physocarpa</i>	Milkweed
<i>Argemone ochroleuca</i>	White-flowered Mexican poppy
<i>Bidens pilosa</i>	Common blackjack
<i>Chenopodium album</i>	White goosefoot
<i>Commelina benghalensis</i>	Benghal wandering jew
<i>Conyza albida</i>	Tall fleabane
<i>Conyza bonariensis</i>	Horseweed
<i>Conyza podocephala</i>	Conyza
<i>Chamaesyce inaequilatera</i>	Smooth creeping milkweed
<i>Flaveria bidentis</i>	Smelter's bush
<i>Lepidium bonariense</i>	Pepperweed
<i>Plantago lanceolata</i>	Narrow-leaved Ribwort
<i>Richardia brasiliensis</i>	Tropical Richardia
<i>Schkuhria pinnata</i>	Dwarf marigold
<i>Senecio polyanthemoides</i>	Ragwort
<i>Tagetes minuta</i>	Tall khaki weed
<i>Tribulus terrestris</i>	Common dubbeltjie

TABLE 4. SEDGES CONTROLLED BY Arsenal® GEN 2

BOTANICAL NAME	COMMON NAME
<i>Cyperus esculentus</i>	Yellow nutsedge

Arsenal® GEN 2 controls the above mentioned plant species alone, or in tank mixes with other products, as indicated.

Other plant species, that were not present during the development trials with the product, may possibly also be controlled to varying degrees.

The registration holder does not accept any responsibility for unlisted plant species.

WAARSKUWINGS

Gevaarstellings

- Mag 'n allergiese velreaksie veroorsaak
- Mag velirritasie veroorsaak.
- Giftig vir waterplante.
- Stoor in 'n koel, droë plek, weg van voedsel en voer.
- Hou buite bereik van kinders, oningeligte persone en diere.

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 versuim 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 die geval van enige onsekerheid.

VOORSORGMAATREÛLS

Voorsorgstellings

- Indien mediese advies nodig is, hou die produkhouer of etiket byderhand.
- Hou buite bereik van kinders.
- Lees etiket voor gebruik.
- Dra beskermende handskoene
- Inaseming van spuitnewel, dampe en sproei moet vermy word.
- Contaminated work clothing should not be allowed out of the workplace.
- INDIEN OP DIE VEL: Was met baie seep en water.
- In geval van velirritasie, verkry mediese hulp.
- Verwyder besoelde klere en was voor hergebruik.
- Raak ontslae van inhoud en houer deur na 'n gevaarlike- of spesiale-afval insamelingsplek te besorg.

- Dra rubberhandskoene en –stewels, oorpak en gesigskerm, wanneer konsentraat hanteer word en terwyl gespuit word.
- Moenie eet, drink of rook terwyl die produk vermeng of aangewend word nie.
- Was hande en gesig met seep en water na gebruik en na toevallige velkontak .
- Vermy oorwaai van sproeinewel na oesgewasse, weiding, riviere, damme en enige area wat nie behandel moet word nie.
- Matig korroderend - was toerusting deeglik na gebruik en gooi die waswater weg, waar dit nie oesgewasse, weiding, riviere en damme sal besoedel nie.
- Leë houers moet DRIEKEER UITGESPOEL word soos volg: Keer die leë houer om oor die spuittenk of mengbak en dreineer vir minstens 30 sekondes, nadat die vloeï tot 'n gedrup verminder het. Spoel die houer daarna driekeer uit, met 'n volume water gelykstaande aan 'n minimum van 10 % van die houer.
- Gooi die spoelwater by die inhoud van die spuittenk voordat die houer vernietig word. Vernietig die leë houer deur gate daarin te maak en dit plat te slaan. Verseker dat die leë houer in 'n veilige plek weggegooi word en moet dit nooit vir enige ander doel hergebruik nie.
- Verhoed besoedeling van voedsel, voer, drinkwater en eetgerei.
- Maak toedieningsapparaat deeglik skoon voor hergebruik.

RELEVANTE STOWWE

Gevaarlike Bestanddele Volgens UN GHS kriteria	CAS nommer	Konsentrasie (W/W)
imazapyr (ISO); 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-3-pyridine carboxylate	81334-34-1	21,82 %
Oxirane, methyl-, polymer with oxirane, mono-C10-16-alkyl ethers, phosphates	68649-29-6	< 25 %
Isopropylamine	75-31-0	< 15 %
Orthophosphoric acid	7664-38-2	< 10 %
Propane-1,2-diol	57-55-6	< 5 %

NOODHULPBEHANDELING

Verwyder besoedelde klere

INDIEN IN DIE OË:	Spoel oë dadelik vir ten minste 15 minute met lopende water uit terwyl die ooglede oopgehou word
INDIEN INGESLUK:	Spoel mond dadelik uit en drink 200 – 300 ml water, kry mediese hulp.
INDIEN OP DIE VEL:	Was deeglik met seep en water.
INDIEN INGEASEM:	Hou pasiënt kalm, verwyder na vars lug, kry mediese hulp.

Indikasie van enige onmiddellike mediese aandag en spesiale behandeling nodig

Behandeling: Behandel simptome (reinig, belangrikste funksies). Daar is geen spesifieke teenmiddel nie.

GEBRUIKSBEPERKINGS

- Moenie **Arsenal® GEN 2** op, of binne die wortelgebied van gewenste plantegroei, toedien nie.
- Om skade aan gewenste bome te verhoed, moet **Arsenal® GEN 2** nie binne twee maal die drupgebied (blaredak), toegedien word nie.
- Verhoed spuitnewel op gewenste plantegroei of nie-teiken areas.
- Gebruik geskikte skermspuitpunte.
- Vermoed oorvlueeling van spuitbane.

WAARSKUWING TEEN WEERSTAND

Arsenal® GEN 2 is van die imidazolinone groep van onkruidodders. Die manier van werking van hierdie groep is primêr die onderdrukking van die acetolactate synthase (ALS) ensieme en word dus geklassifiseer deur HRAC as 'n Groepkode 2 onkruidodder.

Die voorkoms van sekere natuurlike onkruidbiotipes is weerstandbiedend teen **Arsenal® GEN 2** en ander ALS onderdrukkende onkruidodders en mag ontstaan as gevolg van normale, genetiese variasie in enige onkruidpopulasie. Die weerstandbiedende individue kan uiteindelik die onkruidpopulasie domineer, as hierdie groep onkruidodders herhaaldelik gebruik word. Hierdie bestande onkruid sal nie deur **Arsenal® GEN 2** beheer word nie en sal waarskynlik nie deur ander onkruidodders, wat die ALS ensiem onderdruk, beheer word nie.

Aangesien dit moeilik is om te bepaal of hierdie bestande onkruid teenwoordig is

voor die onkruidodder toediening, is dit van die uiterste belang dat behandelde areas gereeld geïnspekteer word, om hierdie bestande onkruid betyds te identifiseer. BASF SA (Edms) Bpk neem geen aanspreeklikheid vir prestasie mislukking in die geval van die opbou van bestande onkruid, as gevolg van onbekwame weerstandbiedendheidsbestuur nie.

Om weerstandbiedendheid te vertraag:

- Vermy uitsluitlike, heraalde gebruik van onkruidodders van dieselfde Groep Kode. Integreer ander beheermaatreëls (chemies, verbouing, biologies) in onkruidodderprogramme.

VIR SPESIEFIEKE INLIGTING OOR WEERSTANDBESTUUR, KONTAK DIE REGISTRASIEHOUER, BASF SA (Edms) Bpk.

GEBRUIKSAANWYSINGS

GEBRUIK SLEGS SOOS AANGEDUI

Algemene inligting:

- **Arsenal® GEN 2** is 'n breëspektrum, nie-selektiewe-onkruidodder, vir die beheer van grasse, breëblaaronkruid, uintjies en biesies.
- **Arsenal® GEN 2** bevat beide voor-opkoms- en na-opkoms onkruidodderende aktiwiteit, met 'n lang nawerking, maar is mees effektief wanneer na-opkoms, op aktiefgroeiende plante gespuit word.
- **Arsenal® GEN 2** word maklik deur die blare en wortels opgeneem en word dan spoedig na die groeipunte getranslokeer, waar dit groei inhibeer.
- Reënval, twee ure na toediening, behoort geen effek uit te oefen op die werking van die produk nie.
- Groei van plante staak kort na toediening, maar uiteindelijke afsterwe van behandelde plante vind stadig plaas, veral tydens droë toestande. Volledige beheer kan tot agt weke neem.
- **Arsenal® GEN 2** kan met 'n rugsak of trekker-gemonteerde spuitbalk gespuit word.
- Gebruik goeie kwaliteit water.
- Die residuele effektiwiteit van **Arsenal® GEN 2** hou verband met die vatbaarheid van die plant spesie, grondvog, pH van die grond en dosis toegedien. Dit kan varieer van drie maande (onder nat toestande), tot meer as nege maande (onder droë toestande).

Verenigbaarheid:

- **Arsenal® GEN 2** mag as 'n tenkmengsel gebruik word met 'n middel wat spuitstofwegdrywing verminder.
- **Arsenal® GEN 2** is ook verenigbaar met glifosaat.

Wanneer **Arsenal® GEN 2** saam met ander plaagdoders gebruik word, moet volle kennis geneem word van alle **WAARSKUWINGS, VOORSORGMAATREËLS** en **GEBRUIKSAANWYSINGS** van genoemde etikette.

Menginstruksies:

Vul die spuittenk driekwart vol met skoon water. Skud die **Arsenal® GEN 2** houer voor gebruik. Meet die benodigde volume **Arsenal® GEN 2** af en meng dit vooraf met minstens 10 ℓ water, voordat dit by die tenk gevoeg word. Indien enige ander produk saam met **Arsenal® GEN 2** gemeng word (bv. glifosaat), moet dit vooraf gemeng word op dieselfde manier. Vul die tenk verder met water tot by die verlangde volume, terwyl voortdurend geroer word, om goeie vermenging te verseker. Aangemaakte spuitmengsels moenie in die spuittenk gelaat word vir 'n onbepaalde tyd, bv. oornag, nie. Alle toedienings moet gemaak word met geskikte toerusting, wat in goeie werkende toestand en korrek gekalibreer is, ten einde die verlangde bedekking te gee vir die betrokke toedieningsmetode.

TOEDIENINGSTYD WANNEER VIR SUIKERRIET UITROEIING EN ONKRUIDBEHEER GEBRUIK WORD

- Dien **Arsenal® GEN 2** toe, na die finale ratoen suikerriet ge-oes is en hergroei plaasgevind het en wanneer onkruid voorkom.
- Dien toe wanneer die suikerriet 30 - 45 cm hoog is, ten volle opgekom het en aktief groei. Kyk na **GEBRUIKSAANBEVELINGS** hieronder.

GEMIDDELDE DAE OM KNIEHOOGTE TE BEREIK		
STREEK	SUIKERRIET GE-OES IN MIDDEL-AUGUSTUS	SUIKERRIET GE-OES IN MIDDEL-DESEMBER
Kusstreek	60	35
Middelalande	80	48
Laeveld	50	32

- Beide die suikerriet en die onkruid moet aktief groei ten tye van toediening en nie verwelk of onder stremming verkeer nie.
- Onkruid moenie afgeskerm word deur die suikerriet blaredak nie.
- Verseker goeie bedekking met die spuitoplossing.

TABEL 1 ONDKRUIDBEHEER IN SUIKERRIET EN OP SERVITUTE

GEWAS	TEIKEN	DOSIS / Ha	GEBRUIKSAANBEVELINGS
SUIKERRIET	Finale ratoen uitroeiing Grasse, Breëblare en Uintjies (soos gelys in TABELLE 2, 3 & 4)	5,2 l Arsenal® GEN 2	Dien as 'n volle dekbepuiting toe oor die onkruid en oor die hergroei van die laaste ratoen, in ten minste 300 l water / ha, om volledige bedekking te verseker. LW: Verwys ook na GEBRUIKSBEPERKINGS, WEERSTANDBIEDENDHEIDSWAARSKUWING, GEBRUIKSAANWYSINGS, TOEDIENINGSTYD, en BELANGRIKE NOTAS.
SERVITUUT AREA (Randte en paadjies)	Grasse, Breëblare en Uintjies (soos gelys in TABELLE 2, 3 & 4)	5,2 l Arsenal® GEN 2	Dien slegs een maal per seisoen toe. Dien as 'n volle dekbepuiting toe oor aktief groeiende onkruid in nie minder as 300 l water / ha, om volledige bedekking te verseker.

BELANGRIKE NOTAS

(KYK OOK NA WEERSTANDBIEDENDHEIDSWAARSKUWING)

A. WAGPERIODE VOOR HERPLANT VAN SUIKERRIET

- Na die **Arsenal® GEN 2** toediening, kan die suikerriet, **SLEGS** na 'n minimum wagperiode van ten minste vier maande **EN** na ten minste 600 mm neerslag (verkieslik reën), gedurende die warmer maande van die jaar, herplant word.

B. DOELTREFFENDHEID

- Toediening op plante wat onder stremming is, sal verminderde effektiwiteit veroorsaak. Bydraende faktore tot stremming is: droogte, siektes, plaë, versuiping, ens. Verseker toediening op aktiefgroeiende plante.
- Afskerming van die suikerriet oor die onkruid met toediening, sal verlaagde effektiwiteit veroorsaak. Maak seker van die korrekte tyd van toediening en gebruik holkeël-spuitpunte, om die teikengebied te bedek.
- Enige meganiese grondbewerking, voor die toediening van **Arsenal® GEN 2** wat kluite op die oppervlak laat (bv. rip), sal verlaagde effektiwiteit veroorsaak.
- Enige meganiese bewerking wat die versteuring van grond veroorsaak na die toedieng van **Arsenal® GEN 2**, sal die residuele doeltreffendheid verlaag.
- Herhalende en / of swaar reën, mag die residuele doeltreffendheid van **Arsenal® GEN 2** verlaag, veral op sanderige grond.

C. OPVOLGTOEDIENINGS

- Moenie **Arsenal® GEN 2** meer as een maal in 'n normale herplantsiklus toedien nie.
- Na die **Arsenal® GEN 2** bespuiting, sal hergroei van suikerriet-polle en onkruid voorkom, te danke aan die biologiese variasies wat in landbou ondervind word. Hierdie 'oorgeslane' dele moet met kolbespuitings van glifosaat, teen die geregistreerde dosis, behandel word (verwys na die toepaslike tabel).

D. RESIDUELE EFFEK

- Die verhouding van die afbraak van **Arsenal® GEN 2** in die grond sal verhoog, soos wat die pH verhoog. Residuele effek is van langer duur by lae pH (suur gronde (pH < 6,0)).
- Die afbraak in die grond van **Arsenal® GEN 2** is hoofsaaklik te wyte aan bestaande mikro-organismes in die grond.
- Verandering van die pH van die grond deur bekalking, kan addisionele vrystelling vanaf die kleikoloïede teweegbring. Dit sal die konsentrasie van **Arsenal® GEN 2** tydelik in die grond verhoog, totdat normale afbraak deur die mikro-organismes in die grond plaasvind.
- Aanplanting, te kort nadat kalk toegedien is, mag dus skade aan die nuutgeplante gewas veroorsaak. Laat ten minste 12 weke tussen bekalking en herplant toe. 'n Toetsaanplanting met enkelogee saadstokke word altyd aanbeveel.
- Sodra die suikerriet geplant is, sal normale besproeiing die afbraak van die oorblywende residue bespoedig.

- Aanvanklik mag blaarskroei opgelet word op die jong suikerriet onder sekere stremmingstoestande (bv. droogte periodes) en met sekere variëteite, wat meer sensitief as ander is, vir imidazolinone onkruiide. Die gewas behoort dit te ontgroeï oor tyd, met geen nadelige effek ten opsigte van die oes nie.

Arsenal® GEN 2 sal die mees algemene breëblaaronkruiide, grasse en uintjies beheer.

TABEL 2. GRASSE WAT DEUR Arsenal® GEN 2 BEHEER WORDE Eleusine coracana

WETENSKAPLIKE NAAM	ALGEMENE NAAM
<i>Cynodon dactylon</i>	Kweek
<i>Cynodon nlemfuensis</i>	Stergras
<i>Digitaria sanguinalis</i>	Kruisvingergras
<i>Digitaria abyssinica</i>	Tropiese vingergras
<i>Eleusine coracana</i>	Jongosgras
<i>Hyparrhenia hirta</i>	Dektamboekiegras
<i>Panicum maximum</i>	Buffelsgras
<i>Paspalum dilatatum</i>	Gewone paspalum
<i>Paspalum distichum</i>	Buffelskweek paspalum
<i>Paspalum urvillei</i>	Reuse paspalum
<i>Pennisetum clandestinum</i>	Kikoejoe
<i>Melinis repens</i>	Natalse Rooipluim
<i>Sorghum halepense</i>	Johnsonsgras
* <i>Sporobolus africanus</i>	*Rotstert fynsaadgras
<i>Themeda triandra</i>	Rooigras
<i>Urochloa panicoides</i>	Eenjarige sinjaalgras

* Beheer van die spesies, is wisselvallig.

TABEL 3. BREËBLAARONKRUIDE WAT DEUR Arsenal® GEN 2 BEHEER WORD

WETENSKAPLIKE NAAM	ALGEMENE NAAM
<i>Asclepias physocarpa</i>	Balbos
<i>Argemone ochroleuca</i>	Witblom Mexikaanse papawer
<i>Bidens pilosa</i>	Gewone knapsekêrel
<i>Chenopodium album</i>	Withondebossie
<i>Commelina benghalensis</i>	Benghalse wandelende jood
<i>Conyza albida</i>	Vaalskraalhans
<i>Conyza bonariensis</i>	Kleinskraalhans
<i>Conyza podocephala</i>	Bakbossie
<i>Chamaesyce inaequilatera</i>	Gladde kruipmelkkruid
<i>Flaveria bidentis</i>	Smeltersbossie
<i>Lepidium bonariense</i>	Peperbossie
<i>Plantago lanceolata</i>	Smalblaarplantago
<i>Richardia brasiliensis</i>	Tropiese Richardia
<i>Schkuhria pinnata</i>	Kleinkakiebos
<i>Senecio polyanthemoides</i>	Radiatorbossie
<i>Tagetes minuta</i>	Langkakiebos
<i>Tribulus terrestris</i>	Dubbeltjie

TABEL 4 UINTJIES WAT DEUR Arsenal® GEN 2 BEHEER WORD

WETENSKAPLIKE NAAM	ALGEMENE NAAM
<i>Cyperus esculentus</i>	Geeluintjie

Arsenal® GEN 2 beheer die bogenoemde plantspesies alleen, of in tenkmengsels, met ander produkte soos aangedui.

Ander plantspesies wat nie tydens die ontwikkelingsproewe met die middel voorgekom het nie, kan ook moontlik in 'n meerdere of mindere mate beheer word.

Die registrasiehouer aanvaar egter geen aanspreeklikheid ten opsigte van ongelyste plantspesies nie.

Arsenal[®] GEN 2

Reg. No.: L8817

Act No. 36 of 1947

**READ ATTACHED PACKAGE OR LEAFLET BEFORE USE
KEEP OUT OF REACH OF CHILDREN AND ANIMALS**

GROUP	2	HERBICIDE
-------	---	-----------

A non-selective systemic herbicide solution with residual activity for the control of annual and perennial weeds as listed, for use in industrial areas and servitudes.

‘n Nie-selektiewe sistemiese-onkruiddoderoplossing, met nawerking vir die beheer van een- en meerjarige onkruides soos aangetoon, vir die gebruik in industriële gebiede en servitude.

WARNING

Hazard Statements:

May cause an allergic skin reaction.

Precautionary Statements:

Wear protective gloves.

Avoid breathing mist or vapour or spray.



Active ingredient / Aktiewe bestanddeel:

Imazapyr (imidazolinone)..... 240 g/l

Registered by

BASF South Africa (Pty) Ltd.
Co. Reg. No. 66/10235/07
P.O. Box 2801
Halfway House 1685
+27 11 203 2400

Geregistreer deur:

BASF Suid-Afrika (Edms) Bpk.
Mpy Reg. Nr 66/10235/07
Posbus 2801
Halfweghuis 1685
+27 11 203 2400

Batch No: & Date Manufactured: Refer details printed on container
Lotnommer & Datum vervaardig Verwys na besonderhede gedruk op houer

EMERGENCY NUMBER / NOODNOMMER +27 82 446 8946

10 l

81080021ZA1093

