

KIRON

BEFORE USING THIS PRODUCT, READ THE LABEL CAREFULLY

KIRON

INSECTICIDE



Reg. No. L10695, Act/Wet No. 36 of/van 1947 1: 02/07/2019

A suspension concentrate insecticide for the control of the agricultural pests in the crops as indicated.

'n Suspensie konsentraat insekdoder vir die beheer van landbouplae op die gewasse soos aangedui.

IRAC INSECTICIDE GROUP CODE	12A	IRAC INSEKDODER GROEPKODE
ACTIVE INGREDIENT / AKTIEWE BESTANDEEL		
Diafenthiuron (thio-urea)	500 g/ℓ	Diafenthiuron (thio-urea)

Registration Holder / Registrasiehouer
Meridian Agrochemical Company (Pty.) Ltd. / (Edms.) Bpk.
Reg. No. 2000/010819/07
P.O. Box / Posbus 436, Modderfontein, 1645, South Africa / Suid-Afrika

ℓ



UN Number: 3082



CAUTION / VERSIGTIG



GERBUKSAANWYSINGS INGESLUIT
Lotnummer
Datum van vervaardiging

DIRECTIONS FOR USE ENCLOSED
Batch Number
Date of manufacture

VERWYS NA BESONDERHEDE
SOOS OP HOUER / SAK GEDRUK

REFER TO DETAILS AS PRINTED
ON CONTAINER / BAG

WARNINGS

Withholding periods:

Allow the following minimum number of days between application and harvest or feeding:

Tomatoes.....4 days

IMPORTANT: The recommended withholding period between last application and harvest meets local residue requirements, but may not meet export requirements. If the treated crop is intended for export, consult the relevant exporting organisation regarding MRL requirements and withholding periods. When this product is applied according to the label recommendations indicated below, the local MRL will not be exceeded. Meridian Agrochemical Company (Pty) Ltd T/A Meridian Agritech cannot, however, be held liable for export crops exceeding the import tolerances of other countries.

- Handle with care.
- Poisonous if swallowed or inhaled and harmful by prolonged contact with skin.
- Irritating to eyes.
- Toxic to fish, aquatic life and bees.
- Store in the original closed container in a cool, dry place, well-ventilated place away from direct sunlight and damp.
- Avoid storage below 0°C and above 35°C.
- Once the container has been opened, the product should be used within a few days.
- Store away from food, feed and fertilizers.
- Keep under lock and key in the original, tightly closed container.
- Keep out of reach of children, uninformed persons and animals.
- Do not use this product in any way contrary to the directions on this label.
- **KIRON** has been tested on the most important commercial cultivars without any phytotoxic effects. More susceptible cultivars may be released in future which need to be tested; for this apply **KIRON** to a limited test area before commercial applications are made.
- **Re-entry:** Do not enter treated area until the spray deposit has dried, unless wearing protective clothing.

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 pest 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

- Do not inhale the spray mist. Avoid contact with eyes and skin.
- Wear rubber gloves and face shield when mixing and applying.
- Wash with soap and water after use.
- Wash contaminated clothing after use.
- Do not eat, drink or smoke while mixing or applying the product or before washing hands and face and changing clothing.
- Prevent contamination of food, feeds, drinking water and eating utensils.
- Wear rubber gloves and face shield when handling the concentrate. If you get this product in your eyes, flush it out at once. Flush eyes with plenty of clean water for at least 15 minutes whilst holding eyelids open. Remove contact lenses. If you get the product on your skin, wash off with plenty of non-abrasive soap and water. If you spill this product on your clothes, change and wash them.
- **Never** re-use the empty container for any other purpose.
- While spraying, avoid contact with the spray as much as possible.
- Do not inhale spray mist.
- Avoid contamination of other crops, grazing, rivers, dams and areas not under treatment.
- Clean applicator after use. Dispose of rinsate where it will not contaminate crops, grazing, rivers, dams and boreholes or any other areas not under treatment.
- Change and wash your work clothes. Wash yourself.
- Spillage: Soak up with sand, sawdust or soil and shovel into waste containers.

- Do not contaminate stagnant or running water by disposal of waste.
- Avoid drift of spray onto other crops, grazing, rivers, dams and areas not under treatment.
- Dispose of excess pesticide, spray mixture or rinsate where it will not contaminate crops, grazing, rivers, dams or boreholes.
- Empty container completely.
- Perforate and bury or burn the empty container.
- Do not use the empty container for any other purpose.

MODE OF ACTION

Upon contact with light, or *in vivo*, diafenthiuron is converted to the corresponding carbodiimide, an inhibitor of mitochondrial respiration. Diafenthiuron is an insecticide and acaricide which kills larvae, nymphs and adults by contact and / or stomach action. It also shows some ovicidal action.

USE RESTRICTIONS

- **Toxic to bees:** Do not spray during periods of bee activity.
- Before application is made, notify beekeepers to move hives to a safe location with an untreated source of nectar.
- Do not apply **KIRON** to any crop or situation not mentioned in this instruction leaflet.
- Only apply **KIRON** using an accurate and safe application technique.
- Do not apply this product in combination or tank mixture with any other product or agricultural remedy which is not specifically listed on this label. Meridian Agrochemical Company (Pty) Ltd accepts no responsibility for any negative effects experienced if the instructions on this label are not adhered to, unless a Meridian representative was consulted beforehand.

RESISTANCE WARNING

For resistance management, **KIRON** is a group code 12A insecticide. Any insect population may contain individuals naturally resistant to **KIRON** and other group code 12A insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **KIRON** or any other group code 12A insecticide.

To delay insecticide resistance:

- Avoid exclusive repeated use of insecticides from the same insecticide group code. Alternate, or tank mix with, registered products from different insecticide group codes.
- Integrate other control methods (chemical, cultural, biological) into insect control programmes.
- The choice of products to be used during one growing season should take the resistance strategy into consideration.

Since the occurrence of resistance cannot be forecast, users are advised to keep treated crops under close observation. If treatment is not effective following the use of **KIRON** as recommended, a resistant population may be present. If a resistant population is positively identified, consideration should be given to prompt use of an insecticide with a different mode of action for which there is no record of resistance to the relevant pest. For specific information on resistance management, contact the registration holder of this product. Meridian Agrochemical Company T/A Meridian Agritech cannot accept responsibility for any losses that may result from failure to control pests resistant to **KIRON**.

DIRECTIONS FOR USE

Use only as directed.

Make use of a scouting system and economic threshold values to determine when to commence application of **KIRON** for insect and mite control in Cotton and Tomatoes.

COMPATIBILITY

The compatibility of **KIRON** with other products depends on the formulations of the respective products as well as the quality of the spray water to be used. As formulations change from time to time, it is recommended that a physical compatibility test be done prior to the tank mixture being made. Do not make tank mixtures with other agricultural remedies or foliar feed products without first ensuring that no crop damage or reduction in efficacy will result.

When mixing **KIRON** with other products, all **WARNINGS, PRECAUTIONS** and **DIRECTIONS OF USE** appearing on that particular label must be adhered to.

MIXING INSTRUCTIONS

Half-fill the spray tank with suitable water. Add the required quantity of **PYROMITE** to the water in the tank while agitating. Fill the spray tank to the desired volume with water while agitating. **Tank mixtures must be sprayed out immediately and not allowed to stand in the spray tank overnight. The spray mixture must be applied within a few hours of mixing.** Do not use brackish water. Ensure that agitation takes place for a few minutes prior to commencement of spraying after normal operational stops, e.g. lunch break. Application equipment must be thoroughly flushed out at the end of the spraying operation.

KIRON may be mixed with water of different pH values. **Do not use products to acidify the water.**

Ensure constant and thorough agitation during mixing and spray operations.

Avoid spraying during the heat of the day, if foliage is wet, or if rain is imminent.

Allow 24 hours to expire between a **KIRON** application and overhead irrigation.

GROUND APPLICATION:

Tractor sprayers with spray boom for cotton application:

Add a spray volume of at least 150 ℓ / ha. Dense growing cotton will require higher spray volumes for improved coverage.

Tractor sprayers for tomato application:

Apply using different spray volumes depending on plant size and application method. Ensure thorough wetting of the plants. For plants up to 600 mm in height, use up to 500 ℓ water / ha. For plants taller than 600 mm, use up to 1500 ℓ water / ha.

Mistblowers and low volume spray applications for tomatoes:

Complete coverage of the plant is important. It is essential to apply the same volume of **KIRON** per hectare as would be the case when high volume spray equipment is used, notwithstanding the volume of water per hectare applied.

RECOMMENDATIONS

CROP / PEST	APPLICATION RATE	REMARKS
COTTON Spider mites (<i>Tetranychus</i> spp.)	800 mℓ / ha	Apply 1 – 2 applications
TOMATOES Red Spider Mite (<i>Tetranychus urticae</i>) Whiteflies (<i>Trialeurodes vaporariorum</i> and <i>Bemisia tabaci</i>)	80 mℓ / 100 ℓ water 60 mℓ / 100 ℓ water	Start applications at a threshold of <1.5 mobiles per compound leaf. Apply 2 applications at 7-8 day intervals Apply 2 applications at 7 day intervals. Alternate with chemicals with a different mode of action to reduce resistance development. See "Resistance Management" notes.

WAARSKUWINGS

Onthoudingsperiodes:

Laat die volgende minimum aantal dae toe tussen toediening en oes of beweiding:

Tamaties.....4 dae

BELANGRIK: Die aanbevole onthoudingsperiode tussen die laaste toediening en oes voldoen aan die plaaslike residuvereistes, maar dit mag nie aan die buitelandse uitvoervereistes voldoen nie. Indien die behandelde gewas vir die buiteland bestem is, moet die relevante invoer- of uitvoerinstansie genader word rakende die aanbevole onthoudingsperiode (MRL) vir die gebruik van die produkte. Indien hierdie produk toegedien word volgens die etiketvoorskrif soos hieronder aangedui, sal die plaaslike MRL nie oorskry word nie. Meridian Agrochemical Company (Edms.) Bpk. H/A Meridian Agritech kan egter nie aanspreeklik gehou word vir uitvoergewasse wat die invoervereistes van ander lande oorskry nie.

- Hanteer versigtig.
- Giftig indien ingesluk of ingeasem en skadelik met langdurige velkontak.
- Kan oogirritasie veroorsaak.
- Giftig vir visse, waterlewe en bye.
- Bêre in die oorspronklike houër in 'n koel, droë, goed-geventileerde vertrek, weg van direkte sonlig en klammigheid.
- Vermoë berging onder 0°C en bokant 35°C.
- Sodra die houër oopgemaak is, moet die produk binne 'n paar dae gebruik word.
- Bêre weg van voedsel, voer en kunsmis.
- Bêre agter slot-en-grendel in die oorspronklike digsluitende houër.
- Hou buite bereik van kinders, oningeligte persone en diere.
- Moenie hierdie produk op enige manier wat teenstrydig met die etiketaanwysings is, gebruik nie.
- **KIRON** is sonder enige fitotoksisiteitskade op die mees belangrikste kommersiële kultivars getoets. Meer sensitiewe kultivars mag in die toekomst vrygestel word wat eers getoets moet word; hiervoor moet **KIRON** eers op 'n klein toetsoppervlakte aangewend word, alvorens groot kommersiële bespuitings gemaak word.
- **Herbetreding:** Moenie behandelde gebied betree alvorens spuitneerslag droog is nie, tensy beskermende oorklere gedra word.

Alhoewel hierdie middel omvattend onder 'n groot verskeidenheid toestande getoets is, waarborg die registrasiehouer nie dat dit onder alle toestande doeltreffend sal wees nie. Die werking en doeltreffendheid daarvan kan beïnvloed word deur faktore soos abnormale grond-, klimaats- en bergingstoestande; kwaliteit van verdunningswater, verenigbaarheid met ander stowwe wat nie op die etiket aangedui word nie en die voorkoms van weerstand van die plaë teen die betrokke middel, sowel as die metode, tyd en akkuraatheid van die toediening. Verder aanvaar die registrasiehouer nie verantwoordelikheid vir skade aan gewasse, plantegroei, die omgewing of vir nadelige invloede 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.

VOORSORGMAATREËLS

- Moenie die dampe of spuitnewel inasem nie. Vermoë kontak met oë en vel.
- Dra rubberhandskoene en gesigskerm wanneer vermenging en toediening plaasvind.
- Was met seep en water na gebruik.
- Was besoedelde klere onmiddellik na gebruik.
- Moenie eet, drink of rook tydens vermenging of toediening van die produk of voordat hande en gesig gewas en skoon klere aangetrek is nie.
- Voorkom die besoedeling van voedsel, voer, drinkwater en eetgerei.
- Dra rubberhandskoene en gesigmasker wanneer die konsentraat hanteer word. Indien van die produk in oë beland, spoel dit onmiddellik uit. Spoel oë met genoegsame skoon water vir ten minste 15 minute terwyl ooglede oopgehou word. Verwyder kontaklense. Indien van die produk op vel beland, was met baie water en nie-skurende seep af. Indien produk op klere beland, trek uit en was klere.
- **Moenie** leë houër vir enige ander doel hergebruik nie.
- Terwyl bespuiting plaasvind, verhoed kontak so veel as moontlik met die spuitmengsel.

- Vermoed besoedeling van ander gewasse, weiding, riviere, damme en gebiede wat nie onder behandeling is nie.
- Maak toedieningsapparaat na gebruik skoon. Oortollige plaagdoder en uitspoelwater moet nie gewasse, weidings, riviere, damme en boorgate of enige ander gebied wat nie onder behandeling is, besoedel nie.
- Ruil en was werksklere. Was jouself.
- Mors van produk: Absorbeer met sand, saagsels of grond en skep in afvalhouers.
- Moenie staande of lopende water besoedel tydens afvalverwydering nie.
- Vermoed wegdrywing van spuitnewel na ander gewasse, weiding, riviere, damme en gebiede wat nie behandel moet word nie.
- Maak houer heeltemal leeg.
- Maak gate in houer en begrawe of verbrand leë houer.

METODE VAN WERKING

Sodra diafenthiuron in kontak met lig kom, of *in vivo*, word dit na die ooreenstemmende karbodiimid omgesit, wat 'n inhibeerder van mitochondriale respirasie is. Diafenthiuron is 'n insek- en mytdoder wat larwes, nimfe en volwassenes deur kontak- en maagaksie doodmaak. Dit het ook eierdodende eienskappe.

GBERUIKSBEPERKINGS

- **Giftig vir bye:** Moenie gedurende periodes wanneer bye aktief is spuit nie.
- Alvorens toediening gemaak word, kontak byeboere om korwe na veilige gebied met onbehandelde nektarbron te neem.
- Moenie **KIRON** op enige gewas of situasie aanwend wat nie in die voorskrifetiket verskyn nie.
- Dien **KIRON** slegs toe deur van akkurate ven veilige toedieningstegnieke gebruik te maak.
- Moenie hierdie produk in kombinasie of tenkmengsel met enige ander produk of landboumiddel gebruik wat nie spesifiek op hierdie etiket gelys is nie. Meridian Agrochemical Company (Edms.) Bpk. aanvaar geen verantwoordelikheid vir enige negatiewe gevolge indien die instruksies op die etiket nie nagekom word nie, tensy 'n Meridian verteenwoordiger vooraf geraadpleeg is.

WEERSTANDSWAARSKUWING

Vir weerstandsbestuur is **KIRON** 'n groeppkode 12A insekdoder. Enige insekpopulasie mag individue bevat wat natuurlike weerstand teen **KIRON** of enige ander groeppkode 12A insekdoder het. Die weerstandbiedende individue kan uiteindelik die insekpopulasie oorheers as hierdie insekdoder herhaaldelik aangewend word. Hierdie weerstandbiedende insekte sal waarskynlik nie deur **KIRON** of enige ander groeppkode 12A insekdoder beheer word nie.

Om weerstand teen insekdoders te verhoog:

- Vermoed die eksklusiewe herhaaldelike gebruik van insekdoders met dieselfde chemiese groeppkode. Wissel af met, of gebruik tenkmengsels van, produkte in verskillende insekdodergroeppodes.
- Integreer ander beheermaatreels (chemies, verbouing, biologies) in insekbeheerprogramme.
- Die produkteuses wat gedurende 'n groeiseisoen gebruik word, moet die weerstandstrategie in ag neem.

Aangesien die voorkoms van weerstandbiedendheid moeilik is om te bepaal, is dit uiters belangrik om die behandelde gewasse noukeurig te ondersoek. Indien die behandeling nie effektief was met die gebruik van **KIRON** soos voorgeskryf nie, mag daar 'n weerstandbiedende-populasie teenwoordig wees. Indien so 'n weerstandbiedende-populasie positief geïdentifiseer word, moet daar onmiddellik 'n insekdoderbespuiting wat 'n ander werkswyse het, waar daar geen bewys van weerstand teen die plaag voorkom, gedoen word. Vir spesifieke inligting oor weerstandsbestuur kan die registrasiehouer van hierdie produk gekontak word. Meridian Agrochemical Company (Edms.) Bpk. sal geen verantwoordelikheid aanvaar vir enige gebrek aan prestasie en verliese wat mag voorkom in gebrek aan beheer van plaeg wat weerstandig teen **KIRON** is nie.

GBRUIKSAANWYSINGS

Gebruik slegs soos aangedui.

Maak gebruik van 'n verkenningsmetode en ekonomiese drumpelwaardes om vas te stel wanneer die **KIRON** toediening moet begin vir die beheer van insekte en myte in Katoen en Tamaties.

VERENIGBAARHEID

Die verenigbaarheid van **KIRON** met ander produkte sal van die formulering van die onderskeie produkte afhang, asook van die kwaliteit van die verdunningswater wat gebruik word. Soos formulering van tyd tot tyd verander, is dit raadsaam om eers 'n fisiese verenigbaarheidstoets te doen, voordat tenkmengsels gemaak word. Moenie tenkmengsels met ander landboumiddels of blaarvoedingsprodukte maak alvorens seker gemaak is dat geen gewasskade of verlies aan effektiwiteit sal voorkom nie. Indien **KIRON** met ander produkte gemeng word, moet alle **WAARSKUWINGS**, **VOORSORGMATREËLS** en **GEBRUIKSAANWYSINGS** soos wat op die etiket verskyn, nagekom word.

MENGINSTRUKSIES

Vul die spuittenk halfvol met skoon water. Voeg die verlangde hoeveelheid **KIRON** by die spuitwater terwyl dit geroer word. Maak spuittenk tot by die verlangde volume vol terwyl roering plaasvind. **Tenkmengsels moet onmiddellik uitgespuit word en nie toegelaat word om in die spuittenk oornag te staan nie. Die spuitmengsel moet binne 'n paar uur na vermenging toegedien word.** Moenie brakwater gebruik nie. Verseker dat roering 'n paar minute voor toediening plaasvind na normale operasionele rusperodes, bv. middagete. Spuittoerusting moet deeglik aan die einde van die spuitproses uitgespoel word.

KIRON mag met water van verskillende pH waardes gemeng word. **Moenie produkte gebruik om die water te versuur nie.**

Verseker konstante en deeglike roering gedurende die meng- en spuitoperasies.

Vermy toediening op die hitte van die dag, indien blare nat is of indien reën naby is.

Laat 24 uur tussen 'n **KIRON** toediening en oorhoofse besproeiing toe.

GRONDTOEDIENING

Trekkegermonteerde spuitbalke vir katoentoediening:

Gebruik ten minste 'n spuitvolume van 150 l / ha. Diggroeiende katoen sal verhoogde volume vereis vir verbeterde bedekking.

Trekkerspuite vir tamatie-toediening:

Dien toe deur van verskillende spuitvolumes gebruik te maak afhangende van die plantgrootte en toedieningsmetode. Verseker deeglike benatting van die plante. Vir plante tot op 600 mm in hoogte, gebruik tot 500 l water / ha. Vir plante langer as 600 mm, gebruik tot 1500 l water / ha.

Newelspuite en lae-volume spuittoediening by tamaties:

Algehele bedekking van die plante is belangrik. Dit is noodsaaklik om dieselfde hoeveelheid **KIRON** per hektaar te gebruik soos by hoë-volume toediening, ongeag die hoeveelheid watervolume per hektaar.

AANBEVELINGS

GEWAS/PLAAG	DOSIS	OPMERKINGS
KATOEN Spinmyte <i>(Tetranychus spp.)</i>	800 ml / ha	1 – 2 toedienings
TAMATIES Roospinmyt <i>(Tetranychus urticae)</i> Witvlieg <i>(Trialeurodes vaporarium</i> <i>en Bemisia tabaci)</i>	80 ml / 100 l water 60 ml / 100 l water	Begin toediening by 'n drempelwaarde van <1.5 bewegende myte per saamgestelde blaar. Dien 2 toedienings met 7-8 dae intervalle toe. Dien 2 toedienings teen 7 dag intervalle toe. Wissel af met produkte met 'n ander metode van werking om weerstandbiedendheid te voorkom. Sien notas oor "Weerstandsbestuur".