



BITRAD SPIROXAMINE®

Reg. No. L10181 Act 36 of 1947
Reg. Nr. L10181 Wet nr. 36 van 1947

Read the label before use
Keep out of reach of children and animals

FRAC Fungicide code	5	FRAC Swamdoder groepkode
---------------------	---	--------------------------

A systemic emulsifiable concentrate fungicide, for the control of powdery mildew, on table- and wine grapes and mangoes.

'n Sistemiese emulgeerbare konsentraat swamdoder, vir die beheer van witroes, op tafel- en wyndruive en veselperskes.

	Hazard statements Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects. Precautionary statements Obtain, read and follow all safety instructions before use. Do not breathe mist/vapors/spray. Wash hands and face thoroughly after handling. Do not touch eyes. Wear protective clothing, rubber gloves, gum boots and face shield, when handling concentrate.
--	---

WARNING

Active ingredient
Spiroxamine (spiroketalamine)

500 g/l

Aktiewe bestanddeel
Spiroksamien (spiroketalamien)

Net Volume

1, 5, 20 l

Netto Volume

Registered By:/

Geregistreer Deur:

BITRAD AGRI (PTY) LTD

Co. Reg. No. 2008/021787/07

41 Rudolph Street, Sunderland Ridge

Centurion

Tel: 012 666 7331

National Poisons Centre: 0861 555 777

Batch number
Date manufactured

Lotnommer
Datum vervaardig

Un No: 3082

BITRAD SPIROXAMINE is the registered trademark / is 'n geregistreerde handelsmerk

WARNINGS

ALLOW THE FOLLOWING MINIMUM NUMBER OF DAYS, BETWEEN LAST APPLICATION AND HARVEST:

Table Grapes	Do not apply after commencement of the flowering stage
Wine Grapes	21

- Handle with care.
- Harmful if swallowed.
- Causes skin irritation.
- Causes serious eye irritation.
- Suspected of damaging the unborn child.
- Causes damage to organs through prolonged or repeated exposure.
- Very toxic to aquatic life with long lasting effects.
- Store away from food, feeds, seed and fertilizers.
- Store in original containers, tightly closed, in a cool dry well-ventilated place.
- Re-entry: Do not enter treated area until spray deposit has dried, unless wearing protected clothing.

Although this remedy has been 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 disease 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, harm to man or animal, lack of performance of the remedy concerned due 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

- Obtain, read and follow all safety instructions before use
- Do not breathe mist/vapors/spray.
- Wash hands and face thoroughly after handling. Do not touch eyes.
- Do not eat, drink or smoke when using this product.
- Avoid release to the environment.
- Wear protective clothing, rubber gloves, gum boots and face shield, when handling concentrate.
- If exposed or concerned, get medical advice.
- IF SWALLOWED: Rinse mouth. Get medical help.
- IF ON SKIN: wash with plenty of water.
- If skin irritation occurs: Get medical help.
- Take off contaminated clothing and wash it before reuse.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
- If eye irritation persists: Get emergency medical help.
- Get medical help if you feel unwell.
- Collect spillage.
- Store locked up.
- Prevent spray drift onto other crops, grazing, rivers, dams and areas not under treatment.
- If medical advice is needed, have product container or label at hand.
- Clean application 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 recycling the container in the prescribed manner.

RELEVANT SUBSTANCES

<u>Substance</u>	<u>Concentration %</u>
Spiroxamine Tech 96%	30 – 60%
Sodium Dodecylbenzene Sulphonate	<10%
Mono Ethylene Glycol	<10%
Cyclohexanone	30 – 60%

SYMPTOMS OF HUMAN POISONING

No specific symptoms evident for this product but may include abdominal pain, diarrhoea and vomiting, eye and skin irritation and irritation of mucous membranes.

FIRST AID TREATMENT

IF IN EYES:	Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. If irritation persists consult a doctor.
IF SWALLOWED:	Rinse mouth and then drink plenty of water. Do not induce vomiting. Seek medical attention.
IF ON SKIN:	Remove contaminated clothing, including shoes, and launder before reuse. Wash skin with plenty of soap and water. If irritation persists consult a doctor.
IF INHALED:	Immediately remove the affected victim from exposure to an area of fresh air. Administer artificial respiration if breathing has stopped. Administer oxygen if breathing is difficult. Keep at rest. Get medical help if you feel unwell.

NOTE TO PHYSICIAN

BITRAD SPIROXAMINE belongs to the spiroketalamine chemical group. There is no specific antidote.

Symptoms: Locally very irritating to skin, eyes and respiratory tract. Risk of serious damage to eyes. On ingestion, over exposure to benyl alcohol may cause headache, nausea, vomiting, gastro-intestinal irritation, convulsions, depression of central nervous system, unconsciousness.

Treatment: Following decontamination and basic aid, treat symptomatically.

RESISTANCE WARNING

Any fungal population may contain individuals naturally resistant to **BITRAD SPIROXAMINE** fungicides. The resistant individuals can eventually dominate the fungal population, if these fungicides are used repeatedly and exclusively in programmes. These resistant fungi may not be controlled by **BITRAD SPIROXAMINE** and other Group Code 5 fungicides.

To delay fungicide resistance:

- Avoid exclusive, repeated use of fungicides from the same group code.
- Alternate or tank mix with fungicides from different group codes as per individual product labels.
- Integrate other control methods (chemical, cultural, biological), into disease control programmes.

DIRECTIONS FOR USE:

USE ONLY AS DIRECTED

Compatibility:

- Do not mix **BITRAD SPIROXAMINE** with strong oxidizing agents or strong acids.
- Do not apply **BITRAD SPIROXAMINE** with surfactants, stickers or foliar fertilizers.
- Always consult labels of products needed to be tank mixed with **BITRAD SPIROXAMINE**. In such cases, do a physical compatibility test of products before application

Mixing instructions:

Half fill the tank with clean water. Add the required quantity of **BITRAD SPIROXAMINE** to the mixing tank. Fill the spray tank to the required volume with water, while maintaining agitation. Maintain agitation during the whole spraying operation. Prepared spray mixture must not be left in the spray tank for any length of time, e.g. overnight.

APPLICATION RECOMMENDATIONS

TABLE- AND WINE GRAPES

- Apply fortnightly, starting at 5 – 10 cm shoot length.
- **BITRAD SPIROXAMINE** forms a part of a spray programme, for the control of powdery mildew.
- **Do not apply more than 3 applications per season.**
- For good resistance management, the other applications must be made with fungicides unrelated to **BITRAD SPIROXAMINE**.

High volume applications for table- and wine grapes:

Spray to the point of run-off, ensuring even coverage. Apply the following water volumes, depending on the leaf area present:

Growth stage	Water volume in ℓ / ha	
	Wine grapes	Table grapes
Shoots 5 - 10 cm long	625	625
Shoots 20 – 30 cm long	781	781
Beginning of bloom	1016	-
Pea-berry size	1094	-
After pea-berry stage	1250	-

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.

CROP	DISEASE	DOSAGE / 100 ℓ WATER	DIRECTIONS FOR APPLICATION
TABLE- and WINE GRAPES	Powdery mildew (<i>Oidium tuckeri</i>)	60 mℓ	Apply BITRAD SPIROXAMINE as a preventive treatment, commencing at 5 - 10 cm shoot length. Repeat at 14-day spray intervals. Do not apply more than 3 applications per season. Further applications must be made with different Fungicide Group Codes, for powdery mildew control.

Low volume applications for table- and wine grapes:

- **BITRAD SPIROXAMINE** can be applied as low volume application.
- Calculate the volume of product required per hectare from the corresponding high-volume application. Ensure however, that the concentration does not exceed 4X strength of high-volume concentrations. Apply in at least 250 litres water per hectare, to ensure good coverage.

CROP	DISEASE	DOSAGE / 100 ℓ WATER	DIRECTIONS FOR APPLICATION
MANGOES	Powdery mildew (<i>Oidium mangiferae</i>)	60 mℓ	Apply BITRAD SPIROXAMINE at first signs of infection. Apply as full cover spray to ensure coverage of all panicles. Repeat at 14-day intervals as needed up to 100% petal drop.

WAARSKUWINGS

LAAT DIE VOLGENDE MINIMUM AANTAL DAE TOE, TUSSEN DIE LAASTE TOEDIENING EN OES:

Tafeldruiwe	Moenie na die begin van die blomstadium spuit nie
Wyndruiwe	21

- Hanteer versigtig.
- Skadelik indien ingesluk.
- Veroorsaak velirritasie.
- Veroorsaak ernstige oogirritasie.
- Word daarvan verdink dat dit die ongebore kind beskadig.
- Veroorsaak skade aan organe deur langdurige of herhaalde blootstelling.
- Baie giftig vir waterlewe met langdurige effekte.
- Berg weg van voedsel, voer, saad en kunsmis.
- Berg in oorspronklike houters, dig toe, in 'n koel droë goed geventileerde plek.
- Herbetreding: Moet nie behandelde area betree voordat spuitneerslag droog is nie, tensy beskermde klere gedra word.

Alhoewel hierdie middel omvattend en 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 'n siekte 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, nadelige effek op mens of dier, of vir 'n gebrek aan prestasie 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

- Verkry, lees en volg alle veiligheidsinstruksies voor gebruik
- Moenie mis/dampe/spuitnewel inasem nie.
- Was hande en gesig deeglik na hantering. Moenie aan oë raak nie.
- Moenie eet, drink of rook wanneer hierdie produk gebruik word nie.
- Vermoed vrylating na die omgewing.
- Dra beskermende klere, rubberhandskoene, tandvleisstawels en gesigskerm wanneer konsentraat hanteer word.
- Indien blootgestel of bekommerd, kry mediese advies.
- INDIEN INGESLUK: Spoel mond uit. Kry mediese hulp.
- INDIEN OP DIE VEL: was met baie water.
- Indien velirritasie voorkom: Kry mediese hulp.
- Trek besoedelde klere uit en was dit voor hergebruik.
- INDIEN IN OË: Spoel versigtig uit met water vir 'n paar minute. Verwyder kontaklense indien teenwoordig en maklik om te doen - gaan voort om te spoel.
- Indien oogirritasie voortduur: Kry nood mediese hulp.
- Kry mediese hulp as jy onwel voel.
- Versamel gemors.
- Stoor toegesluit.
- Voorkom wegdrywing van spuitnewel na ander gewasse, weiding, riviere, damme en areas nie onder behandeling nie.
- Indien mediese advies benodig word, hou produkhouer of etiket byderhand.
- Maak toedieningstoerusting skoon na gebruik en gooi spoelwater weg waar dit nie gewasse, weiding, riviere en damme sal besoedel nie.
- Leë houters moet DRIEKEER UITGESPOEL word soos volg: Keer die leë houer om oor die spuittenk of mengbak en dreineer vir minstens 30 sekondes, nadat die vloei 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 op die voorgeskrewe wyse, herwin word.

RELEVANTE BESTANDDELE

<u>Bestanddeel</u>	<u>Konsentrasie %</u>
Spiroxamine Teg 96%	30 – 60%
Natrium Dodecylbenzene	<10%
Sulfonaat	<10%
Mono-etileenglikol	30 – 60%

SIMPTOME VAN VERGIFTIING

Geen spesifieke simptome word waargeneem nie, maar mag maagpyn, diaree en vomering insluit. Oog en velirritasie sowel as irritasie van die slymvliese mag waargeneem word.

NOODHULPBEHANDELING

INDIEN IN DIE OË:	Spoel versigtig met water vir 'n paar minute. Verwyder kontaktese indien teenwoordig en maklik om te doen - gaan voort om te spoel. Raadpleeg 'n oogspesialis indien irritasie aanhou.
INDIEN INGESLUK:	Spoel mond uit en drink baie water. Moenie braking veroorsaak nie. Soek mediese hulp.
INDIEN OP DIE VEL:	Verwyder gekontamineerde klere, insluitend skoene, en was voor hergebruik. Was vel met baie seep en water. As irritasie voortduur, raadpleeg 'n dokter.
INDIEN INGEASEM:	Verwyder die persoon weg van die area na vars lug. Indien opgehou asemhaal het, moet KPR toegedien word. Hou pasiënt kalm en verwyder na vars lug. Kry mediese hulp as jy onwel voel.

NOTA AAN GENEESHEER

Spiroksamien behoort aan die spiroketalamien chemiese groep. Daar is geen spesifieke teenmiddel nie. Risiko van ernstige skade aan die oë. Wanneer ingeneem mag hoofpyn, naarheid, braking, gastro-intestinale irritasie, sametrekings, depressie van sentrale senuweestelsel en bewusteloosheid plaasvind.

Behandeling: Behandel simptome.

WEERSTANDBIEDENHEIDSWAARSKUWING

Enige populasie van 'n spesifieke swam mag individue insluit, wat 'n natuurlike weerstand teen **BITRAD SPIROXAMINE**, het. Indien hierdie swamdoders in herhaaldelike en eksklusiewe programme aangewend word, kan die weerstandbiedende individue, uiteindelik die swampopulasie oorheers. Hierdie weerstandbiedende swamme, sal waarskynlik nie deur **BITRAD SPIROXAMINE**, of enige ander Groepkode 5 swamdoders beheer word nie.

Om weerstand teen swamdoders, te vertraag:

- Verminder die eksklusiewe herhaaldelike gebruik van swamdoders van dieselfde groepkode.
- Raadpleeg toepaslike individuele produketikette, wanneer daar afgewissel word met ander Groepcodes, of tenkmengsels gemaak word.
- Integreer ander beheermaatreëls (chemies, verbouing, biologies), in swamdoderprogramme.

GEBRUIKSAANWYSINGS:

GEBRUIK SLEGS SOOS VOORGESKRYF

Verenigbaarheid:

- **BITRAD SPIROXAMINE** is nie verenigbaar met sterk oksiderende middels of sterk sure nie.
- Moenie **BITRAD SPIROXAMINE** met benattingsmiddels, klefmiddels en blaarvoeders toedien nie.
- Wanneer tenkmengsels van ander produkte gemaak wil word met **BITRAD SPIROXAMINE 500**, moet die etikette deeglik nagekom word. Doen 'n fisiese verenigbare toets voor toediening.

Menginstruksies:

Maak die spuitnek halfvol met skoon water. Meet die benodigde hoeveelheid **BITRAD SPIROXAMINE** af en voeg dit by die water. Vul die spuitnek met water tot verlangde volume, terwyl daar geroer word, ten einde deeglike vermenging van die spuitmengsel te verseker, alvorens daar begin word met bespuiting. Handhaaf roering gedurende die hele spuitproses. Aangemaakte spuitmengsel moenie in die spuitnek gelaat word vir enige bepaalde tydperk, bv. oornag, nie.

TOEDIENINGSAANBEVELINGS

TAFEL- EN WYNDRIUWE

- Dien voorkomend, voor infeksie met 5 – 10 cm lootlengte, toe.
- **BITRAD SPIROXAMINE**, vorm deel van 'n spuitprogram, vir die beheer van poeieragtige meeldou, uit.
- **Moenie meer as drie maal per seisoen spuit nie.**
- Vir goeie weerstandbiedendheidsbestuur, moet die ander toedienings met swamdoders, wat nie verwant is aan **BITRAD SPIROXAMINE**, gemaak word nie.

Hoë volume bespuitings vir tafel- en wyndruwe:

Spuut tot die aflooppunt en verseker 'n egalige bedekking. Dien die volgende waterhoeveelhede toe, afhangende van die aanwesige blaaroppervlakte:

Groeistadium	Watervolume in ℓ / ha	
	Wyndruwe	Tafeldruwe
Lote 5 - 10 cm lank	625	625
Lote 20 – 30 cm lank	781	781
Begin van blomstadium	1016	-
Ertjekorrelstadium	1094	-
Na ertjekorrelstadium	1250	-

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.

GEWAS	SIEKTE	DOSIS / 100 ℓ WATER	GEBRUIKSAANBEVELINGS
TAFEL- en WYN- DRUIWE	Poeieragtige meeldou (<i>Oidium tuckeri</i>)	60 mℓ	Dien BITRAD SPIROXAMINE voorkomend, vanaf 5 - 10 cm lootlengte toe. Herhaal met 14 dae spuitintervalle. Moenie meer as 3 toedienings per seisoen maak nie. Verdere toedienings, moet met ander Groepkode swamdoders gespuit word vir poeieragtige meeldou beheer.

Lae volume toedienings vir tafel- en wyndruiwe:

- **BITRAD SPIROXAMINE** kan toegedien word as 'n lae volume toediening.
- Bereken die volume van die produk benodig per hektaar vanaf die ooreenstemmende hoë volume toediening. Maak seker dat die konsentrasie nie 4x die sterkte van die hoë volume konsentrasie oorskrei nie. Dien in ten minste 250 liter water per hektaar toe, om goeie bedekking te verseker.

GEWAS	SIEKTE	DOSIS / 100 ℓ WATER	GEBRUIKSAANBEVELINGS
VESELPERSKE	Poeieragtige meeldou (<i>Oidium mangiferae</i>)	60 mℓ	Dien BITRAD SPIROXAMINE met die eerste tekens van infeksie toe. Dien as 'n volle bedekking toe, om te verseker dat al die blomtrosse bereik word. Herhaal met 14 dae intervalle soos benodig, tot en met 100% blomblaarval.