SPIROMAT 240 SC

Act No. 36 of 1947 / Wet Nr. 36 van 1947
SA Reg. No. L11092 / NAM Reg. No. N-AR 2312 / BWA Reg. No. W1301830

READ ATTACHED PACKAGED LEAFLET BEFORE USE
KEEP OUT OF REACH OF CHILDREN AND ANIMALS

GROUP	23	INSECTICIDE

PRODUCT INFO:
A suspension concentrate, systemic insecticide for the control of insects on crops as listed.

PRODUK INFO:
'n Suspensie konsentraat sistemiese insekdoder vir die beheer van insekte op gewasse soos aangedui.

WARNING

HAZARD STATEMENTS:
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause respiratory irritation.
Suspected of damaging fertility or the unborn child.
Very toxic to aquatic life.
Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS:
Wear protective gloves, protective clothing, eye and face protection.
Wash hands and exposed skin thoroughly after handling. Do not touch eyes.

Active Ingredient / Aktiewe Bestanddeel

Spirotetramat (tetramic acid) 240 g/ℓ Spirotetramat (tetramiese suur)

Net ℓ SEE CONTAINER

Registration Holder / Registrasiehouer

ICA INTERNATIONAL CHEMICALS (PTY) LTD

ICA International Chemicals (Pty) Ltd. • Reg. No. 2001/013319/07
28 Planken Street • Plankenbrug Industrial • STELLENBOSCH • 7600 • SOUTH AFRICA
Tel. +27-21 886 9812 • www.icaonline.co.za

What is GHS?

Batch No. Date of Manufacture Expiry Date	SEE CONTAINER	Lot Nr. Datum van Vervaardiging Vervaldatum

In case of poisoning, call the following number: Human Poison Helpline +27-861 555 777
Emergency Number: Griffon Poison Information Centre +27-82 446 8946

Group III | UN No. / VN Nr. 3082 | SANBST-003

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Very toxic to aquatic life
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WITHHOLDING PERIODS (Minimum number of days between last application and harvest):

- Cabbage ..... 3 days
- Citrus ..... 60 days
- Cucurbits ..... 1 day
- Peppers ..... 1 day
- Potatoes ..... 7 days
- Stone fruit ..... 14 days
- Strawberries ..... 1 day
- Wine and Table grapes ..... Do not apply after pea berry stage

Compliance with these withholding periods and application methods will ensure that residues do not exceed local maximum residue limits (MRL) but may not meet the import requirements of other countries. If the crop to be treated is intended for export, consult the relevant importer or exporting body regarding the use of this product, MRL and recommended waiting periods. Although **Spiromat 240 SC** is regarded as crop-safe on most of the important cultivars, this does not mean that a more sensitive cultivar might be available in future. **Spiromat 240 SC** must be tested on new cultivars prior to usage over big areas.

RE-ENTRY INTERVAL: Do not enter treated area until spray deposit has dried, unless wearing protective clothing. Wash protective clothing after use.

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 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 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, and the environment or harm to man/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

If medical advice is needed, have product container or label at hand.
Obtain, read, and follow all safety instructions before use.
Avoid breathing mist/vapours/spray.
Wash hands and exposed skin thoroughly after handling. Do not touch eyes.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Avoid release to the environment.
Wear protective gloves, protective clothing, eye and face protection.
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical help.
IF exposed or concerned, get medical advice.
For specific treatment, see first aid measures on this label.
Take off contaminated clothing and wash it before reuse.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical help if you feel unwell.
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 medical help.
Collect spillage.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of contents and container in accordance with national regulations.

TRIPLE RINSE THE EMPTY CONTAINER AS FOLLOWS: Invert the empty container over the spray or mixing tank and drain for at least 30 seconds until the flow has slowed down to a drip. Thereafter, rinse the empty container three times in succession with one quarter of the container volume with fresh water and decant the rinsate into the spray or mixing tank. Puncture the triple rinsed container and dispose of via an approved collector or recycler (www.croplife.co.za). Do not bury, burn or donate the container to any other parties that may use it as a container for food or beverages.

RELEVANT SUBSTANCES:

Spirotetramat (Cas no: 203313-25-1) Eye Irritation Category 2, H319; Skin Sensitization Category 1, H317; STOT SE Category 3, H335; Aquatic Acute Category 1, H400; Aquatic Chronic Category 1, H410; Reproductive Toxicity Category 2, H361 (24 % w/v).
Sulfurous acid (Cas no: 115535-44-9) Aquatic Chronic Category 3, H412 (< 10 % w/v).
[1-Deoxy-1-(methyl-(C8-10-(even)-alkanoyl)-amino)-D-Glucitol] (Cas no: 1591782-62-5) Acute Oral Toxicity Category 4, H302; Eye Damage Category 1, H318; Acute Inhalation Toxicity Category 4, H332 (< 5 % w/v).
1,2-benzisothiazol-3-one (Cas no: 2634-33-5) Skin Sensitization Category 1, H317; Aquatic Acute Category 1, H400 (< 1 % w/v).

FIRST AID TREATMENT

In case of accident or if you feel unwell seek medical advice immediately and show this LABEL where possible

INHALATION:	Remove the victim from immediate source of exposure. Move victim to fresh air, if it can be done safely, and keep comfortable. If victim's breathing has stopped, perform artificial respiration. Administer oxygen if victim's breathing is difficult or irregular. Get medical help.
SKIN:	Remove and isolate contaminated clothing, shoes, and leather goods immediately and take a shower. Rinse affected areas (skin) immediately with non-abrasive soap or mild detergent and large amounts of running water. Wash contaminated clothing before reuse. Get medical help if irritation develops and persists.
EYES:	Rinse eyes IMMEDIATELY with clean running water for at least 15 minutes, while holding eyelids apart. Remove contact lenses after 5 minutes if present and easy to do. Continue rinsing while holding eyelids apart. Seek medical help if irritation continues.
INGESTION:	If swallowed, DO NOT induce vomiting, unless instructed to do so by poison control center or doctor. Have person sip a glass of water if able to swallow. Never give anything by mouth to an unconscious person. If vomiting does occur, keep on giving fluids. Get medical help.
NOTE TO PHYSICIAN:	There is no specific antidote. All treatments should be based on observed signs and symptoms of distress in the patient.
POTENTIAL HEALTH EFFECTS, ACUTE AND DELAYED:	Effects of exposure (inhalation, ingestion, or skin contact) to substance may be delayed.

RESISTANCE WARNING

For resistance management: Spiromat 240 SC is a group code (**23**) systemic insecticide. Any insect population may contain individuals naturally resistant to **Spiromat 240 SC** and other group code (**23**) insecticides. The resistant individuals can eventually dominate the insect population if this insecticide is used repeatedly. These resistant insects may not be controlled by **Spiromat 240 SC** or any other group code (**23**) insecticides.

To prevent or 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,
- for tank mixing or alternation with products in other insecticide group codes, refer to individual product labels,
- do not use less than the recommended label rates of insecticides,
- applications should be targeted against early insect developmental stages whenever possible,
- integrate other forms of control methods (chemical, cultural, biological) into insect control programmes,
- where insect resistance has been confirmed or previously suspected do not apply **Spiromat 240 SC** alone but in combination with a suitable partner from different insecticide group codes.

For specific information on resistance management contact the registration holder of this product or contact your local supplier.

MODE OF ACTION

Spirotetramat is active against piercing sucking insects and acts by the inhibition of lipogenesis, resulting in decreased lipid contents, growth inhibition of younger insects (juvenile stages) and reduce the ability of adult insects to reproduce.

USE RESTRICTIONS

- **Spiromat 240 SC** will not harm the treated crops if applied according to directions, and under normal growing conditions.
- **Spiromat 240 SC** is active only against juvenile / nymph stages of the target pests and causes sterilization of adult females.
- Therefore, adults may still be observed for about two weeks following application.
- Adult populations will decrease from approximately two weeks after application depending on the effect of environmental conditions on the lifecycle of target pests.
- It is not recommended to apply **Spiromat 240 SC** in tank mixtures with fungicides, as this may result in sub-optimal control of the targeted insect pest(s).

EFFECT OF SPIROMAT 240 SC ON BENIFICIAL INSECTS:

INSECTS	EFFECT
Aphytis lingnanensis	Slightly harmful
Chilocorus nigritus	Harmless
Coccidoxenoides peregrinus	Harmless
Euseius citri	Harmful
Trichogrammatoidea cryptophlebiae	Harmless

Bees:

- Harmless to adult bees but may be harmful to bee larvae.
- **DO NOT** apply when trees / plants are flowering.
- Ensure there are no flowering weeds at the time of application.

DIRECTIONS FOR USE – use only as directed

COMPATIBILITY:

The compatibility of **Spiromat 240 SC** with other products depends on the formulations of the respective products as well as the quality of the spray water to be used. It is possible that formulations may change from time to time. It is therefore recommended that a small-scale physical compatibility test be done prior to the tank mixture being made. **Spiromat 240 SC** is **COMPATIBLE** with light to medium narrow range mineral oil and non-ionic adjuvants. In the event of any uncertainty consult the distributer.

MIXING INSTRUCTIONS:

Half-fill the spray tank with clean water, suitable for irrigation, and ensure agitation. The efficacy of **Spiromat 240 SC** may be influenced by the quality of the spray water.

Pre-mix **Spiromat 240 SC** as follows:

- Handle with care and wear gloves while preparing the pre-mix.
- Shake the **Spiromat 240 SC** container thoroughly before mixing.
- Add the required quantity of **Spiromat 240 SC** to 5 – 10 ℓ clean water to make a pre-mix suspension.
- Add this suspension to the spray tank and fill to the final required volume with water.
- Agitate spray mixture constantly before and during application.
- **TANK MIXTURES MUST BE SPRAYED OUT IMMEDIATELY AND NOT ALLOWED TO STAND IN THE SPRAY TANK OVERNIGHT.**

APPLICATION:

- Ensure that the equipment is correctly calibrated and is checked regularly to ensure even and accurate application for long lasting efficacy.
- Ensure good coverage and distribution of the fruit and leaf surface (upper and lower) by using the spray volumes as indicated.
- **Spiromat 240 SC** is a systemic insecticide and is only active against juvenile / nymph stages of the target pests.
- **Spiromat 240 SC** should be applied when the insect is first noticed.
- **CONSTANT AGITATION THROUGHOUT THE SPRAY OPERATION IS ESSENTIAL.**
- Only clean water should be used and avoid using water with a high salt content.

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.

Vegetable crops: Application should only be done by ground spray equipment. Thorough coverage of the target area is essential. Apply in sufficient water – adjusting water volumes according to the crop growth stage. Always add an adjuvant according to the manufacturer's label recommendation.

NOTES:

- **Spiromat 240 SC** is a systemic insecticide and is active only against juvenile / nymph stages of the target pests.
- The treatment must be repeated if it rains within two hours of application.
- Apply adequate spray volume to ensure thorough and uniform coverage of target plant parts.
- Clean applicator thoroughly before and after use and dispose of rinse water where it will not contaminate crops, grazing, rivers, dams and areas not under treatment.
- As crop safety on all cultivars cannot be evaluated, it is advisable to first evaluate crop safety on a small section of the crop.

APPLICATION TABLE

CROP / PEST	DOSAGE RATE	RECOMMENDATIONS FOR USE
CABBAGE Green peach aphid (*Myzus persicae*) Cabbage aphid (*Brevicoryne brassicae*)	200 mℓ/ha + *adjuvant **OR** 20 mℓ/100 ℓ water 200 – 300 mℓ/ha + *adjuvant **OR** 20 – 30 mℓ/100 ℓ water	Start applications once local thresholds are reached. Use the higher rate when periods of high pest pressure or when crops grow rapidly, when longer residual control is desired or when crops are dense (e.g., from the onset of head formation). Ensure thorough spray coverage of the target crop. The timing of subsequent applications should be based on regular scouting and make follow-up applications as necessary. **DO NOT** re-apply within 7 days of a previous **Spiromat 240 SC** spray. **DO NOT** exceed three (3) applications per crop per season.
Whitefly (*Bemisia tabaci* Biotype B)	300 – 400 mℓ/ha + *adjuvant **OR** 30 – 40 mℓ/100 ℓ water	
CITRUS Red scale (*Aonidiella aurantii*) Lowveld citrus mite (*Eutetranychus orientalis*) Citrus red mite (*Panonychus citri*) Citrus rust mite (*Phyllocoptruta oleivora*)	Two-spray programme: 10 – 20 mℓ **Spiromat 240 SC** + 300 mℓ light to medium narrow range mineral oil per 100 ℓ water **OR** Single application: 20 – 40 mℓ **Spiromat 240 SC** + 300 mℓ light to medium narrow range mineral oil per 100 ℓ water	**EARLY PREVENTIVE TREATMENT:** The application of **Spiromat 240 SC** together with a fungicide is not advisable, as efficacy may be reduced. If it is unavoidable, the higher dosage must be used. **Two-spray programme#** Apply the 1st application at the first signs of crawler movement, usually at 80 – 100 % petal fall or just thereafter. Repeat after 4 weeks. Apply as a full cover spray and ensure that all parts of the tree are thoroughly covered. **OR** **Single treatment** Apply at the first signs of crawler movement, normally at 80 – 100 % petal fall or shortly thereafter. Apply as a full cover spray and ensure that all parts of the tree are thoroughly covered.

		These programmes above will control the Mite species present at application.
Citrus thrips (larvae) (*Scirtothrips aurantii*)	20 – 40 mℓ/100 ℓ water	Scout orchards on a regular basis. Start application after flowering at the onset of larvae/nymph movement. **Spiromat 240 SC** control thrips larvae/nymphs. A single application may be sufficient under low infestation. Under higher infestation levels, a second application can be applied two (2) weeks after the first, but before calyx closure. Use the higher rate when infestation levels are high for longer residual control.
NOTE #- The "**Two treatments programme**" is recommended under conditions of extended or sequential periods of crawler movement or during uneven flowering. Refer to "**RESISTANCE WARNING**".		
Mealybugs (*Suppression only*) Citrus mealybug (*Planococcus citri*) Long-tailed mealybug (*Pseudococcus longispinus*) Oleander mealybug (*Paracoccus burnerae*)	30 – 40 mℓ/100 ℓ water **+** 300 mℓ light to medium narrow range mineral oil per 100 ℓ water	Scout orchards on a regular basis. Start application after flowering at the onset of crawler movement. Repeat after 4 weeks. Apply as a full cover spray and ensure that all parts of the tree are thoroughly covered.
Woolly whitefly (*Aleurothrixus floccosus*)	30 – 40 mℓ/100 ℓ water **+** *adjuvant	**Single treatment per season ONLY:** Apply as a medium cover spray when adults are active on leaves and/or nymphs are noticed on the underside of leaves. Ensure thorough coverage of the ventral leaf surfaces.
CUCURBITS Cotton aphid (*Aphis gossypii*) Green peach aphid (*Myzus persicae*)	200 – 300 mℓ/ha + *adjuvant **OR** 20 – 30 mℓ/100 ℓ water	Scout crop on a regular basis. Start applications once the local thresholds are reached. Use the higher rate when periods of high pest pressure or when crops grow rapidly, when longer residual control is desired or when crops are dense. Timing of subsequent applications should be based on regular scouting. Apply follow-up applications as necessary. Ensure thorough spray coverage of the target crop. **DO NOT** re-apply within 7 days of a previous **Spiromat 240 SC** spray. **DO NOT** exceed three (3) applications per crop per season.
Whitefly (*Bemisia tabaci* Biotype B)	300 – 400 mℓ/ha + *adjuvant **OR** 30 – 40 mℓ/100 ℓ water	
PEPPERS Green peach aphid (*Myzus persicae*) Potato aphid (*Macrosiphum euphorbiae*)	200 mℓ/ha + *adjuvant **OR** 20 mℓ/100 ℓ water	Scout crop on a regular basis. Start application once the local thresholds are reached. Apply 500 ℓ spray mixture/ha. Use the higher rate when periods of high pest pressure or when crops grow rapidly, when longer residual control is desired or when crops are dense and large. Timing of subsequent applications should be based on regular scouting and make follow-up applications as necessary. Ensure thorough spray coverage of the target crop. **DO NOT** re-apply within 7 days of a previous **Spiromat 240 SC** spray. **DO NOT** exceed three (3) applications per crop per season. **Spiromat 240 SC** is not highly effective against the adult stage of western flower thrips, however a decline in the population will occur as juveniles are controlled. When aphids are detected, repeat application at 10 – 14-day intervals with a maximum of three (3) applications. If more than three (3) sprays per season are required, **Spiromat 240 SC** should be followed up with registered insecticides with different modes of action.
Whitefly (*Bemisia tabaci* Biotype B) Western flower thrips (larvae) (*Frankliniella occidentalis*)	300 – 400 mℓ/ha + *adjuvant **OR** 30 – 40 mℓ/100 ℓ water	

POTATOES Green peach aphid (*Myzus persicae*)	30 mℓ/100 ℓ water (150 mℓ/ha)	Apply 500 ℓ spray mixture/ha. Start application when aphids are detected, repeat at 10 – 14-day intervals. Apply a maximum of three (3) applications per season. If more than three (3) sprays per season are required, **Spiromat 240 SC** should be followed up with registered insecticides with different modes of action.
STONE FRUIT (Apricots, Nectarines, Peaches and Plums) Pernicious scale / Californian scale (*Quadraspidiotus perniciosus*)	30 – 40 mℓ/100 ℓ water	Start application at the first signs of crawler movement normally at BBCH 72 stage (Green ovary surrounded by dying sepal crown, sepals beginning to fall) or shortly thereafter. Repeat the application after 3 – 4 weeks. Apply as a full cover spray and ensure that all parts of the tree are thoroughly covered.
STRAWBERRIES Red spider mite (*Tetranychus urticae*) Western flower thrips (larvae) (*Frankliniella occidentalis*)	1 ℓ/ha	Apply **Spiromat 240 SC** in at least 500 ℓ of water per hectare as a high volume, high pressure, full cover spray at the first signs of infestation. Ensure thorough coverage of all plant surfaces (top- and undersides of leaves). Apply two (2) sprays at a spray interval of 14 days. **DO NOT** exceed two (2) applications of **Spiromat 240 SC** per season. If further control is required, use an insecticide with another mode of action.
WINE AND TABLE GRAPES Mealybug (*Planococcus* spp.)	High volume application: 10 mℓ/100 ℓ water (65 – 150 mℓ/ha)	Apply the 1st application in a 650 – 1500 ℓ spray mixture/ha with a mist blower at BBCH 53 – 57 stage (Inflorescences clearly visible/Inflorescences fully developed). Repeat the application at pea-berry stage (BBCH 75 – development of fruit), ± six weeks after 1st application. Apply only two (2) applications per season.

*Only use registered products as registered in spray programmes.

SANBST-004

Spiromat 240 SC

Wet Nr. 36 van 1947
SA Reg. Nr. L11092 / NAM Reg. Nr. N-AR 2312 / / BWA Reg. Nr. W1301830

'n Suspensie konsentraat sistemiese insekdoder vir die beheer van insekte op gewasse soos gelys.

AKTIEWE BESTANDDEEL:
Spirotetramat (tetramiese suur) ..... 240 g/ℓ

GEREGISTREER DEUR:
ICA International Chemicals (Pty) Ltd., Reg. Nr. 2001/013319/07
Plankenstraat 28 • Plankenbrug Industrieël • Stellenbosch • 7600 • Suid-Afrika
Tel. +27-21 886-9812 • www.icaonline.co.za

WAARSKUWINGS

Mag allergiese velreaksie veroorsaak
Veroorsaak ernstige oogskade
Mag lugwegirritasie veroorsaak
Vermoede dat dit vrugbaarheid of die ongebore kind beskadig
Baie giftig vir waterlewende organismes
Giftig vir waterlewende organismes met langdurige gevolge

ONTHOUDINGS PERIODES (Minimum aantal dae tussen laaste toediening en oes):

- Aarbeie ..... 1 dag
- Aartappels ..... 7 dae
- Kool ..... 3 dae
- Pampoengewasse ..... 1 dag
- Sitrus ..... 60 dae
- Soetrissie ..... 1 dag
- Steenvrugte ..... 14 dae
- Wyn en Tafel druiwe ..... Moenie later as ertjiekorrel stadium toedien nie

Nakoming van hierdie onthoudingsperiodes en toedieningsmetodes sal verseker dat die plaaslike maksimum residu limiete (MRL) nie oorskry word nie, maar mag dalk nie voldoen aan die invoervereistes van ander lande nie. Indien die gewas wat behandel gaan word, bestem is vir uitvoer, raadpleeg die betrokke in- of uitvoerder rakende die gebruik van hierdie produk, die MRL en aanbevole onthoudingsperiodes. Alhoewel **Spiromat 240 SC** as gewasveilig beskou word op meeste van die belangrike kultivars, beteken dit nie dat 'n meer sensitiewe kultivar in die toekoms op die mark kan kom nie. **Spiromat 240 SC** moet eers op nuwe kultivars getoets word voordat dit oor groot areas aangewend word.

HERBETREDINGSINTERVAL: Moet nie behandelde gebied betree alvorens die spuitneerslag droog is nie, tensy beskermende oorklere gedra word. Klere moet gewas word na gebruik.

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 produkte wat nie op die etiket aangedui is nie en die voorkoms van weerstand 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 effekte op mens of dier of vir 'n gebrek aan doeltreffendheid, as gevolg van die versuim van die gebruiker om die 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

Indien mediese advies benodig word, hou die produkhouer of -etiket byderhand.
Hou buite bereik van kinders.
Lees sorgvuldig en volg alle instruksies.
Verkry, lees en volg alle veiligheidsinstruksies voor gebruik.
Vermy die inaseming van stuifsel/dampe/spuitstof.
Was hande en blootgestelde vel deeglik na hantering. Moet nie aan oë raak nie.
Gebruik slegs buitenshuis of in 'n goed geventileerde area.
Besoedelde werksklere moet nie buite die werksplek toegelaat word nie.
Vermy vrystelling in die omgewing.
Dra beskermende handskoene/beskermende klere/oog- en gesigbeskerming.
INDIEN OP VEL: Was met baie water en seep.
Indien velirritasie ontstaan: Kry mediese hulp.
INDIEN blootgestel of besorg, verkry mediese advies.
Vir spesifieke behandeling sien noodhulp afdeling op hierdie etiket.
Trek alle besoedelde klere uit en was dit voor hergebruik.
INDIEN INGEASEM: Neem slagoffer na vars lug en hou gemaklik vir asemhaling. Verkry mediese hulp indien jy ongesteld voel.
INDIEN IN OË: Spoel versigtig met water vir etlike minute. Verwyder kontaklense indien aanwesig en maklik om te verwyder. Hou aan met spoel.
Indien oogirritasie voortduur: Kry mediese hulp.
Maak stortsel bymekaar.
Berg in 'n goed geventileerde plek. Hou houer digtoe.
Berg agter slot en grendel.
Raak ontslae van inhoud en houer in ooreenstemming met nasionale regulasies.

SPOEL DIE LEË HOUER DRIE MAAL SOOS VOLG: Keer die leë houer om oor die spuit- of mengtenk en dreineer vir minstens 30 sekondes totdat die vloei tot 'n gedrup verminder het. Spoel daarna die leë houer drie keer uit met vars water, teen 'n kwart van die houer se volume, en giet die spoelwater in die spuit- of mengtenk. Kap gate in die drie keer gespoelde houer, waarna dit aan 'n goedgekeurde versamelaar of verwerker oorhandig moet word (www.croplife.co.za). Moenie die houer begrawe, verbrand of aan enige ander partye skenk wat dit as houer vir voedsel of drinkgoed mag gebruik nie.

RELEVANTE STOWWE:

Spirotetramat (Cas no: 203313-25-1) Ernstige Oogirritasie Kategorie 2, H319; Vel Allergie Kategorie 1, H317; Spesifieke Teikenorgaangiftigheid, Enkel Blootstelling Kategorie 3, H335; Waterlewend Akuut Kategorie 1, H400; Waterlewend Kronies Kategorie 1, H410; Reproduktiewe Toksisiteit Kategorie 2, H361 (24 % m/v).

Swaelsuur (Cas no: 115535-44-9) Waterlewend Kronies Kategorie 3, H412 (< 10 % m/v).

[1-Deoxy-1-(methyl-(C8-10-(even)-alkanoyl)-amino)-D-Glucitol] (Cas no: 1591782-62-5) Akute Giftigheid Mondelings Kategorie 4, H302; Oogskade Kategorie 1, H318; Akute Giftigheid Inaseming Kategorie 4, H332 (< 5 % m/v).

1,2-bensisotiasolien-3-oon (Cas no: 2634-33-5) Vel Allergie Kategorie 1, H317; Waterlewend Akuut Kategorie 1, H400 (< 1 % m/v).

NOODHULP BEHANDELING

In geval van 'n ongeluk of as jy onwel voel, verkry onmiddellik mediese advies en wys hierdie ETIKET waar moontlik

INASEMING:	Neem die slagoffer weg van die onmiddellike bron van blootstelling. Verskuif die slagoffer na vars lug as dit veilig gedoen kan word en hou gemaklik. Indien die slagoffer ophou asemhaal, pas kunsmatige asemhaling toe. Dien suurstof toe as die slagoffer se asemhaling moeilik of onreëlmatig is. Verkry mediese hulp.
VEL:	Verwyder en isoleer besmette klere, skoene en leergoedere dadelik en stort. Spoel aangetaste areas (vel) onmiddellik met nieskurende seep of sagwerkende wasmiddel en groot hoeveelhede lopende water. Was besmette klere voor hergebruik. Kry mediese hulp indien irritasie ontwikkel en voortduur.
OË:	Spoel oë ONMIDDELLIK met skoon lopende water vir ten minste 15 minute terwyl die ooglede vanmekaar gehou word. Verwyder kontaklense na 5 minute indien aanwesig en maklik om te doen. Hou aan met spoel terwyl ooglede vanmekaar gehou word. Kry mediese hulp indien irritasie voortduur.
OPNEMING:	Indien ingesluk, MOENIE vomering induseer nie, tensy 'n gifsentrum of dokter opdrag gee om dit te doen. Laat die persoon slukkies water neem indien dit moontlik is om te sluk. Moet nooit iets per mond aan 'n bewustelose persoon gee nie. Indien die persoon wel vomeer, hou aan om vloeistowwe te gee. Verkry mediese hulp.
NOTA AAN GENEESHEER:	Daar is nie 'n spesifieke teenmiddel nie. Alle behandeling moet gebaseer word op waargenome tekens en simptome van nood by die pasiënt.
MOONTLIKE GESONDHEIDSGEVOLGE, AKUUT EN VERTRAAGD:	Gevolge van blootstelling (inaseming, opneming of velkontak) aan stof kan vertraag wees.

WEERSTANDSWAARSKUWING

Vir weerstandsbestuur: Spiromat 240 SC is 'n insekdoder groepkode (**23**) sistemiese insekdoder. Enige insek populasie mag individue insluit wat 'n natuurlike weerstand teen **Spiromat 240 SC**, of enige ander groepkode (**23**) insekdoder het. Indien hierdie groepkode (**23**) insekdoders herhaaldelik aangewend word, kan die weerstandbiedende individue uiteindelik die insekpopulasie oorheers. Hierdie weerstandbiedende insekte sal waarskynlik nie deur **Spiromat 240 SC** of enige ander groepkode (**23**) insekdoder beheer word nie.

Om die ontwikkeling van insekdoderweerstand te voorkom en te vertraag:

- vermy die herhaaldelike gebruik van insekdoders met dieselfde groepkode. Wissel af met, of gebruik tenkmengsels van produkte in verskillende insekdoder groepkodes,
- raadpleeg toepaslike individuele produketikette wanneer daar afgewissel word, of tenkmengsels gemaak word, met produkte in ander insekdoder groepkodes,
- moenie minder as die aanbevole dosis van insekdoders gebruik nie,
- toedienings moet geteiken word teen vroeë insekontwikkelingstadia waar moontlik,
- integreer ander beheermaatreëls (chemies, verbouing, biologies) in insekdoder programme,
- waar weerstand bekend is of vermoed word, moet **Spiromat 240 SC** nie alleen toegedien word nie. Gebruik 'n tenkmengsel met 'n geregistreerde produk van 'n ander insekdoder groepkode.

Vir spesifieke inligting oor weerstandsbestuur kontak die registrasiehouer van hierdie produk of jou plaaslike verskaffer.

WERKINGSWYSE:

Spirotetramat is aktief teen sapsuigende insekte deurdat dit lipogenese inhibeer, wat tot 'n verlaagde lipiedinhoud lei en dus die groei van jonger insekte (jeugstadia) inhibeer en die voortplantingsvermoë van volwasse insekte verminder.

GEBRUIKSBEPERKINGS

- **Spiromat 240 SC** sal nie die behandelde gewasse benadeel indien dit volgens die etiket aanwysings en onder normale groeitoestande toegedien word nie.
- **Spiromat 240 SC** is slegs aktief teen jeugdige / nimfe stadia van die teikenplae en veroorsaak sterilisasie van volwasse wyfies.
- Daarom kan volwassenes 'n geruime tyd na toediening nog steeds waargeneem word.
- Volwasse bevolkings sal ongeveer twee weke na toediening afneem, afhangende van die effek van die omgewingstoestande op die lewensiklus van teikenplae.
- Dit word nie aanbeveel om **Spiromat 240 SC** in tenkmengsels met swamdoders toe te dien nie, aangesien dit sub-optimale beheer van die teiken insekplae tot gevolg kan hê.

EFFEK VAN SPIROMAT 240 SC OP VOORDELIGE INSEKTE:

INSEKTE	EFFEK
Aphytis lingnanensis	Effens skadelik
Chilocorus nigritus	Skadeloos
Coccidoxenoides peregrinus	Skadeloos
Euseius citri	Skadelik
Trichogrammatoidea cryptophlebiae	Skadeloos

Bye:
- Skadeloos teen volwasse bye, maar mag skadelik wees teen larwes.
- MOENIE tydens blom toedien nie.
- Maak seker dat daar geen onkruide in blom is, ten tye van toediening nie.

GEBRUIKSAANWYSINGS – gebruik slegs soos aangedui

VERENIGBAARHEID:
Die verenigbaarheid van **Spiromat 240 SC** met ander produkte hang af van die formulasie van die betrokke produkte asook die kwaliteit van die water wat gebruik gaan word. Dit is moontlik dat formulasie van tyd tot tyd kan verander, en dus word daar aanbeveel dat 'n kleinskaalse fisiese verenigbaarheidstoets uitgevoer word voordat 'n tenkmengsel gemaak word. **Spiromat 240 SC** is **VERENIGBAAR** met ligte tot medium nou-spektrum minerale olie en nie-ioniese benatters. Raadpleeg die verspreider in geval van onsekerheid.

MENGINSTRUKSIES:
Vul die spuittenk halfvol met skoon water, geskik vir besproeiing en maak seker dat spuittenk deurgans gemeng word. Die effektiwiteit van **Spiromat 240 SC** kan deur die kwaliteit van besproeiingswater beïnvloed word.

Meng **Spiromat 240 SC** vooraf soos volg:
- Hanteer versigtig en dra handskoene tydens die voorbereiding van mengsel.
- Skud die **Spiromat 240 SC** houer deeglik voordat die mengsel opgemaak word.
- Voeg die korrekte hoeveelheid **Spiromat 240 SC** by 5 – 10 ℓ skoon water om 'n vooraf mengselsuspensie op te maak.
- Voeg die vooraf mengselsuspensie by die spuit tenk en vul met water tot by finale volume.
- Maak seker die spuitmengsel word voordurend gemeng, voor en tydens toediening.
- **DIE TENKMENGSEL MOET ONMIDDELLIK UITGESPUIT WORD EN NIE TOEGELAAT WORD OM OORNAG IN DIE SPUITTENK TE STAAN NIE.**

TOEDIENING:
- Maak seker dat die spuittoerusting korrek gekalibreer is en gaan gereeld na om seker te maak dat die toediening egalig en akkuraat is vir verlengde effektiwiteit.
- Verseker goeie bedekking en verspreiding op vrugte en blaar oppervlakte (bo- en onder) deur die korrekte spuitvolumes soos aangedui te gebruik.
- **Spiromat 240 SC** is 'n sistemiese insekdoder en is slegs aktief teen jeugdige / nimfe stadia van die teikenplae.
- **Spiromat 240 SC** moet toegedien word sodra insekte vir die eerste keer waargeneem word.
- **DIE MENGSEL MOET AANHOUDEND EN DEEGLIK GEMENG WORD TYDENS TOEDIENING.**
- Slegs skoon water moet gebruik word en vermy die gebruik van water met 'n hoë sout inhoud.

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.
Groente gewasse: Toediening moet slegs met grondspuittoerusting aangewend word. Deeglike bedekking van die teiken area is noodsaaklik. Dien toe in voldoende water – pas watervolumes aan volgens die groeistadium van die gewas. 'n Benatter moet altyd volgens die vervaardiger se etiketaanbeveling aangewend word.

NOTAS:
- **Spiromat 240 SC** is 'n sistemiese insekdoder en is slegs aktief teen jeugdige / nimfe stadia van die teikenplae.
- Herhaal die behandeling indien dit sou reën binne twee ure na toediening.
- Dien voldoende spuitvolumes toe om te verseker dat deeglike en uniforme bedekking van blare en vrugte verkry word.
- Maak toedieningsapparaat deeglik skoon voor en na gebruik en gooi spoelwater uit waar dit nie gewasse, weiding, riviere, damme en gebiede wat nie behandel word nie, sal besoedel.
- Aangesien gewasveiligheid op alle kultivars nie geëvalueer kan word nie, is dit raadsaam om eers veiligheid van die produk op 'n klein gedeelte van die gewas te evalueer.

TOEDIENINGSTABEL		
GEWAS / PLAAG	**DOSIS**	**AANBEVELINGS VIR GEBRUIK**
AARBEIE Rooispinmyt (*Tetranychus urticae*) Blaaspooitjie "Western flower thrips" (larwes) (*Frankliniella occidentalis*)	1 ℓ/ha	Dien **Spiromat 240 SC** toe in ten minste 500 ℓ water per hektaar as 'n hoë volume, hoë druk, voldekbespuiting met die eerste tekens van infestasie. Verseker deeglike bedekking van al die plantoppervlaktes (bo- en onderkante van blare). Dien twee (2) bespuitings toe met intervalle van 14 dae. **MOENIE** twee (2) toedienings van **Spiromat 240 SC** per groeiseisoen oorskry nie. Indien verdere beheer verlang word, moet 'n insekdoder met 'n ander werkswyse gebruik word.
AARTAPPELS Groenperskeluis (*Myzus persicae*)	30 mℓ/100 ℓ water (150 mℓ/ha)	Begin toediening sodra plantluise vir die eerste keer waargeneem word, herhaal bespuiting elke 10 – 14 dae, met 'n maksimum van drie (3) toedienings.

		Dien 500 ℓ spuitmengsel/ha toe. Indien meer as drie (3) bespuitings per seisoen benodig word, moet **Spiromat 240 SC** opgevolg word met geregistreerde insekdoders wat 'n ander werkswyse het.
KOOL Groenperskeluis (*Myzus persicae*) Kool plantluis (*Brevicoryne brassicae*)	200 mℓ/ha + *benatter **OF** 20 mℓ/100 ℓ water 200 – 300 mℓ/ha + *benatter **OF** 20 – 30 mℓ/100 ℓ water	Begin bespuitings sodra plaaslike drempelwaardes bereik word. Gebruik die hoër dosis wanneer periodes van hoë plaag druk of vinnige groei van die gewas voorkom, wanneer langer nawerking verlang word of wanneer die gewas dig groei (bv. vanaf die aanvang van kopvorming). Verseker deeglike bedekking van die teikengewas. Tydsberekening van opvolg bespuitings is gebaseer op gereelde insek monitering en moet daarvolgens toegedien word.
Witvlieg (*Bemisia tabaci* Biotipe B)	300 – 400 mℓ/ha + *benatter **OF** 30 – 40 mℓ/100 ℓ water	**MOENIE** binne 7 dae van 'n vorige **Spiromat 240 SC** toediening herbespuit nie. **MOENIE** meer as drie (3) bespuitings per gewas per seisoen toedien nie.
PAMPOENGEWASSE Katoen Plantluis (*Aphis gossypii*) Groenperskeluis (*Myzus persicae*)	200 – 300 mℓ/ha + *benatter **OF** 20 – 30 mℓ/100 ℓ water	Monitor boorde op 'n gereelde basis. Begin bespuitings sodra plaaslike drempelwaardes bereik word. Gebruik die hoër dosis wanneer periodes van hoë plaag druk, vinnige groei van die gewas voorkom, wanneer langer nawerking verlang word of wanneer die gewas dig groei. Tydsberekening van opvolg bespuitings is gebaseer op gereelde insek monitering en moet daarvolgens toegedien word. Verseker deeglike bedekking van die teikengewas.
Witvlieg (*Bemisia tabaci* Biotipe B)	300 – 400 mℓ/ha + *benatter **OF** 30 – 40 mℓ/100 ℓ water	**MOENIE** binne 7 dae van 'n vorige **Spiromat 240 SC** toediening herbespuit nie. **MOENIE** meer as drie (3) bespuitings per gewas per seisoen toedien nie.
SITRUS Rooidopluis (A*onidiella aurantii*) Laeveldse sitrusmyt (*Eutetranychus orientalis*) Sitrus rooimyt (*Panonychus citri*) Sitrus roesmyt (*Phyllocoptruta oleivora*)	**<u>Dubbel bespuiting:</u>** 10 – 20 mℓ **Spiromat 240 SC** + 300 mℓ ligte tot medium nou-spektrum minerale olie per 100 ℓ water **OF** **<u>Enkel bespuiting:</u>** 20 – 40 mℓ **Spiromat 240 SC** + 300 mℓ ligte tot medium nou-spektrum minerale olie per 100 ℓ water	**<u>VROEË VOORKOMENDE BEHANDELING:</u>** Die toediening van **Spiromat 240 SC** in kombinasie met swamdoders is nie raadsaam nie aangesien dit tot verswakte effektiwiteit kan lei. Indien onvermydelik, moet die hoër dosis gebruik word. **<u>Dubbel bespuiting#</u>** Dien die 1ste bespuiting toe met die eerste tekens van kruiperbeweging, normaalweg by 80 – 100 % blomblaarval of kort daarna. Herhaal die na 4 weke. Dien toe as voldekbespuitings en verseker dat alle dele van die bome deeglik bedek word. **OF** **<u>Enkel bespuiting</u>** Dien toe met die eerste tekens van kruiperbeweging, normaalweg by 80 – 100 % blomblaarval of kort daarna. Dien toe as voldekbespuitings om te verseker dat alle dele van die bome deeglik bedek word. Hierdie toedienings program sal die myt spesies wat teenwoordig is tydens bespuiting, ook beheer.
Sitrus blaaspooitjie (larwes) (*Scirtothrips aurantii*)	20 – 40 mℓ/100 ℓ water	Monitor boorde op 'n gereelde basis. Begin bespuitings na blom met die eerste tekens van larwes/nimfe beweging. **Spiromat 240 SC** beheer blaaspooitjie larwes/nimfe. 'n Enkel bespuiting behoort doeltreffend te wees onder lae vlakke van infestasie. Onder hoë vlakke van infestasie, kan 'n tweede toediening twee (2) weke na die eerste toediening toegedien word, maar voor die kelkend toemaak. Gebruik die hoër dosis indien infestasie vlakke hoog is vir langer residuele beheer.
<u>NOTA</u> # - Die "**Dubbel bespuiting**" word aanbeveel onder toestande van verlengde of opeenvolgende periodes van kruiperbeweging of tydens oneweredige blom. Verwys na "**WEERSTANDSWAARSKUWING**"		

Witluis (*Slegs onderdrukking*) Sitrus witluis (*Planococcus citri*) Lang-stert witluis (*Pseudococcus longispinus*) Oleander witluis (*Paracoccus burnerae*)	30 – 40 mℓ/100 ℓ water **+** 300 mℓ ligte tot medium nou-spektrum minerale olie per 100 ℓ water	Monitor boorde op 'n gereelde basis. Begin bespuitings na blom met die eerste tekens van kruiperbeweging. Herhaal die bespuiting na 4 weke. Dien toe as 'n volle dekbespuiting en verseker dat al die dele van die boom deeglik bedek is.
Wollerige witvlieg (*Aleurothrixus floccosus*)	30 – 40 mℓ/100 ℓ water **+** *benatter	**<u>SLEGS enkel bespuiting per seisoen:</u>** Dien toe as 'n medium dekbespuiting wanneer volwassenes aktief op blare is en / of nimfe aan die onderkant van die blare opgemerk word. Verseker deeglike bedekking van die ventrale blaaroppervlaktes.
SOETRISSIE Groenperskeluis (*Myzus persicae*) Aartappelplantluis (*Macrosiphum euphorbiae*)	200 mℓ/ha + *benatter **OF** 20 mℓ/100 ℓ water	Monitor gewas op 'n gereelde basis. Begin bespuitings sodra plaaslike drempelwaardes bereik word. Dien 500 ℓ spuitmengsel/ha toe. Gebruik die hoër dosis wanneer periodes van hoë plaag druk of vinnige groei van die gewas voorkom, wanneer langer nawerking verlang word of wanneer die gewas dig groei. Tydsberekening van opvolg bespuitings is gebaseer op gereelde insek monitering en moet daarvolgens toegedien word. Verseker deeglike bedekking van die teikengewas. **MOENIE** binne 7 dae van 'n vorige **Spiromat 240 SC** toediening herbespuit nie. **MOENIE** meer as drie (3) bespuitings per gewas per seisoen toedien nie. **Spiromat 240 SC** is nie hoogs effektief teen die volwasse westerse blomblaaspootjie nie, maar 'n afname in die totale blaaspootjie bevolking sal met verloop van tyd plaasvind soos wat die onvolwasse blaaspootjies beheer word. Wanneer plantluise opgemerk word, herhaal toedienings met 10 – 14 dae intervalle en 'n maksimum van drie (3) toedienings. Indien meer as drie (3) bespuitings per seisoen benodig word, moet **Spiromat 240 SC** opgevolg word met geregistreerde insekdoders wat 'n ander werkswyse het.
Witvlieg (*Bemisia tabaci* Biotipe B) Blaaspootjie "Westerse blomblaaspootjie" (larwes) (*Frankliniella occidentalis*)	300 – 400 mℓ/ha + *benatter **OF** 30 – 40 mℓ/100 ℓ water	
STEENVRUGTE (Appelkose, Nektarines, Perskes en Pruime) Verderflike dopluis (*Quadraspidiotus perniciosus*)	30 – 40 mℓ/100 ℓ water	Begin bespuiting met die eerste tekens van kruiperbeweging normaalweg by BBCH 72 stadium (Groen vrugbeginsel omring deur sterwende kelk, kelkblare begin val) of kort daarna. Herhaal die bespuiting na 3 – 4 weke. Dien toe as 'n volle dekbespuiting en verseker dat al die dele van die boom deeglik bedek is.
WYN EN TAFEL DRUIWE Witluis (*Planococcus* spp.)	<u>Hoë volume bespuiting:</u> 10 mℓ/100 ℓ water (65 – 150 mℓ/ha)	Dien die 1ste bespuiting toe in 650 – 1500 ℓ spuitmengsel/ha met 'n newelblaser op BBCH 53 – 57 stadium (Blomtros duidelik sigbaar/Blomtros volledig ontwikkel). Herhaal toediening met ertjiekorrelstadium (BBCH 75 – ontwikkeling van vrug), ± ses weke na 1ste toediening. Dien slegs twee (2) keer toe per seisoen.

*Gebruik slegs geregistreerde produkte in spuitprogram.

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