

BEFORE USING THIS PRODUCT, READ THE LABEL CAREFULLY. KEEP OUT OF REACH OF CHILDREN AND ANIMALS.

Insecticide



SEVIN[®] XLR PLUS

Reg. No. L 5783 Act No. 36 of 1947

4.17/01/2023 – Sept2023

A residual contact and stomach insecticide formulated as a suspension concentrate, for the control of various insects on crops, in gardens and lawns, hides and skins as indicated and for fruit thinning in apples.

ACTIVE INGREDIENT

carbaryl (carbamate)

480 g/l

GROUP

1A

INSECTICIDE



WARNING

Hazard Statements:

Harmful if swallowed.
May be harmful in contact with skin.
May cause an allergic skin reaction.
Suspected of causing cancer.
Very toxic to aquatic life.

Precautionary Statements:

Avoid release to the environment.
Wear impervious rubber gloves and chemical safety goggles.
IF SWALLOWED: Get medical help.

DIRECTIONS FOR USE ENCLOSED

Batch Number:

Date of Manufacture:



villa

UN Number: 3082

Registration holder: UNIVERSAL CROP PROTECTION (PTY) LTD.
Co. Reg. No. 1983/008184/07
P.O. Box 801, Kempton Park, 1620
Tel. (011) 396 2233
Website: www.villacrop.co.za

24 HR EMERGENCY NUMBERS:

Griffon Poison Centre: +27 82 446 8946
24 HR Transport / Spill Emergency no: (Hazcall24) +27 86 044 4411
(Client: Villa Crop Protection)

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IRAC INSECTICIDE GROUP CODE: 1A

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WARNINGS**Withholding periods:**

Allow the following periods between the last application and harvest and/or feeding of the crops concerned:	
Apples & Pears	7 days
Cotton (Grazing)	7 days
Grapes (Table) Do not apply after berries have reached pea size (4 to 6 weeks prior to harvest), as this may cause tarnishing.	28 to 42 days
Grapes (Wine)	14 days
Litchi, macadamia & Pecan nut trees (Stem application)	0 days
Lucerne (Alfalfa) (Grazing)	14 days
Maize	14 days
Pastures & Field crops (Harvesting and grazing)	14 days
Prickly pear & Spineless cactus (<i>Opuntia</i> spp.)	1 day
Tobacco	14 days

NOTE

ABOVE-MENTIONED WITHHOLDING PERIODS REFER TO COMPLIANCE WITH LOCAL MAXIMUM RESIDUE LIMITS (MRL'S). HOWEVER, IT IS IMPORTANT TO NOTE THAT IMPORT TOLERANCES OF OTHER COUNTRIES MIGHT POSSIBLY BE EXCEEDED. IF THE TREATED CROP WILL BE EXPORTED, FIRST CONSULT THE RELEVANT IMPORTER OR EXPORTING BODY REGARDING THE USE OF THIS PRODUCT, MRL'S AND RECOMMENDED WITHHOLDING PERIODS.

Hazard statements:

Harmful if swallowed.
May be harmful in contact with skin.
May cause an allergic skin reaction.
Suspected of causing cancer.
Very toxic to aquatic life.

- DO NOT APPLY TO KIEFFER OF FORELLE PEAR VARIETIES OR QUINCES.
- DO NOT APPLY TO GRANNY SMITH OR VIGOROUS ROYAL GALA TYPE APPLE TREES IF CONDITIONS FAVOUR FRUIT THINNING.
- DO NOT APPLY TO GOLDEN DELICIOUS APPLE TREES IN AREAS WHERE RUSSETING IS A PROBLEM.
- Handle with care.
- Toxic to bees and wildlife.
- Store in a cool, dry place away from food and feeds.
- Keep out of reach of children, uninformed persons and animals.
- Re-entry: Do not enter treated field within 1 day after application unless wearing protective clothing.
- **In case of poisoning immediately call a physician and make this label available to him/her.**

Aerial Application:

Notify all inhabitants of the immediate area to be sprayed and issue the necessary warnings. Avoid overlapping of applications and do not spray over or allow drift to contaminate water or adjacent areas.

ALTHOUGH SEVIN® XLR PLUS IS REGARDED AS CROP-SAFE ON MOST IMPORTANT CULTIVARS; THIS DOES NOT MEAN THAT A MORE SENSITIVE CULTIVAR MIGHT NOT BE COMMERCIALIZED IN THE FUTURE. WHERE A NEW CULTIVAR IS ENCOUNTERED, LARGE AREAS SHOULD NOT BE SPRAYED WITHOUT PRIOR TESTING OF SEVIN® XLR PLUS ON THAT CULTIVAR.

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. 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, 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, 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:

Obtain, read and follow all safety instructions before use.
Avoid breathing dust, fumes, mists, gas, vapours or spray.
Wash hands and face thoroughly after handling.
Do not eat, drink or smoke when using this product.
Contaminated work clothing should not be allowed out of the workplace.
Avoid release to the environment.
Wear impervious rubber gloves and chemical safety goggles.
IF SWALLOWED: Get medical help.
IF ON SKIN: Wash with plenty of water and non-abrasive soap.
Rinse mouth.
If skin irritation or rash occurs: Get medical help.
Collect spillage.
Store locked up.
Dispose of content/container to suitable landfill in accordance with local regulations.

- Avoid prolonged or repeated skin contact with concentrate or spray.
- Wear a face shield and rubber gloves while handling and applying the product.
- Wash contaminated clothing daily.
- Prevent contamination of food, eating utensils, feeds and drinking water.
- In case of eye splashes, rinse thoroughly with clean water.
- Do not spray over or allow drift to contaminate water bodies such as dams, ponds, rivers, streams or fish hatcheries.
- **TRIPLE RINSE THE EMPTY CONTAINER AS FOLLOWS:** Invert the empty container over the spray or mixing tank and drain for at least 30 seconds after the flow has slowed down to dripping. Thereafter rinse the empty container three (3) times in succession with one quarter of the container volume 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.
- Prevent contamination of food, feeds, drinking water and eating utensils.

Relevant hazardous components	
Carbaryl	480 g/l
Solution of 1,2-benzisothiazol-3-(2H)-one (20%) sodium salt in water + dipropylene glycol	< 5 g/l
Citric acid monohydrate	< 2 g/l

SYMPTOMS OF POISONING

Symptoms may include salivation, watery eyes, pinpoint eye pupils, blurred vision, muscle weakness, difficult breathing, excessive sweating, abdominal cramps, nausea, vomiting, diarrhoea, weakness and headaches. In severe cases, convulsions, unconsciousness and respiratory failure may occur.

FIRST AID TREATMENT

- Remove patient from source of poisoning and keep him/her quiet and reassured.
- **Skin:** Remove contaminated clothing, shoes and leather goods. Wash skin gently and thoroughly with cold water and non-abrasive soap. Do not rub skin. Obtain medical attention if irritation persists.
- **Eyes:** Flush eyes with clean water for at least 15 to 20 minutes, holding the eyelid(s) open. Remove contact lenses, if present, after the first 5 minutes then continue rinsing eye(s). Obtain medical attention if irritation persists.
- **Inhalation:** Maintain airway and administer oxygen if available. Remove the patient from the source of contamination and keep affected person warm and at rest. Get medical attention immediately.
- **Ingestion:** Obtain medical attention immediately and make this label available to him or her. Do not give anything by mouth to an unconscious or convulsing person. If conscious and not convulsing, drink 1 to 2 glasses of water and induce vomiting by tickling the back part of the throat with your finger. Repeat until vomit is clear and free from smell of poison. Keep under medical supervision.

NOTE TO PHYSICIAN

SEVIN® XLR PLUS (Carbaryl) is an oxime carbamate which is a moderate reversible, cholinesterase inhibitor. Gastric lavage may be used if this product has been swallowed. Specific treatment consists of atropine sulphate. Improve tissue oxygenation as much as possible before administering atropine to minimise risk of ventricular fibrillation. Mild cases may be given 1 to 2 mg intramuscularly every 10 minutes until full atropinisation has been achieved and repeated thereafter whenever symptoms re-appear. Severe cases should be given 2 to 4 mg intravenously every 10 minutes until fully atropinized, then intramuscularly every 30 to 60 minutes as needed to main the effect for at least 12 hours. Dosages for children should be appropriately reduced. Complete recovery from over-exposure is to be expected within 24 hours. Narcotics and other sedatives should not be used. Other drugs like 2-PAM are not recommended.

Mode of Action:

SEVIN® XLR PLUS acts by inhibition of acetylcholinesterase (AChE) by covalent (irreversible) reaction with the enzyme at the acetylcholine binding site, blocking hydrolysis of acetylcholine and resulting in hyperexcitation.

RESISTANCE WARNING

SEVIN® XLR PLUS is a group code 1A insecticide. Any insect population may contain individuals naturally resistant to **SEVIN® XLR PLUS** and other group code 1A insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **SEVIN® XLR PLUS** or any other group code 1A insecticide.

Since the presence of resistant insects is difficult to detect prior to insecticide application, it is of the utmost importance that treated areas be inspected at regular intervals to identify the occurrence of insecticide resistant insects timeously. The registration holder will not accept liability for performance failures in the event of a build-up of resistant insects resulting from inadequate resistance management practices as indicated on the label.

To delay insecticide resistance:

- avoid exclusive repeated use of insecticides from the same insecticide group code. Alternate or tank mix with products from different insecticide group codes,
- integrate other control methods (chemical, cultural, biological) into insect control programmes.

Codling moth resistance management

When used to control Codling moth (*Cydia pomonella*) in pome fruit, a maximum of four (4) SEVIN® XLR PLUS sprays must be applied to a single Codling moth generation.

To prevent or delay the development of resistance, products with other modes of action should be applied for the control of the other two generations. If SEVIN® XLR PLUS is used for the control of the last generation of the season a product with another mode of action should be used for the control of the first generation in the next season.

For specific information on **RESISTANCE MANAGEMENT** contact the registration holder of this product. For the period that has to be allowed between last application and harvest or grazing, refer “**WARNINGS**”.

DIRECTIONS FOR USE: Use only as directed.**Compatibility:**

SEVIN® XLR PLUS is compatible with **PLANOFIX®** (Reg. L 531). Do not mix with other chemicals when used for fruit thinning. Do not mix with highly alkaline materials e.g. **Hydrated lime** or **Lime sulphur**.

Mixing instructions:

- Half fill the spray tank with clean water.
- Add the required quantity of **SEVIN® XLR PLUS** as recommended below and top up to the volume of water required. Ensure thorough agitation.
- Prepared spray mixture must not be left in the spray tank for any length of time, e.g. overnight.

Aerial application:

SEVIN® XLR PLUS can be applied aerially on certain crops where this is indicated in the “**APPLICATION RATES**” below.

DO NOT COMMENCE AERIAL APPLICATION BEFORE CONSULTING YOUR SEVIN® XLR PLUS REPRESENTATIVE.

Aerial application of **SEVIN® XLR PLUS** may only be done by a registered aerial application operator using a correctly calibrated, registered aircraft according to the instructions of SANS Code 10118 (Aerial Application of Agricultural Pesticides). Ensure that the spray mixture is distributed evenly over the target area and that the loss of spray material during application is restricted to a minimum. It is therefore essential that the following criteria be met:

- Volume: A minimum spray mixture volume of 30 litres per hectare is recommended. As this product has not been evaluated at a reduced volume rate, the registration holder cannot guarantee efficacy, or be held responsible for any adverse effects if this product is applied aerially at a lower volume rate than recommended above.
- Droplet coverage: 30 to 40 droplets per cm² must be recovered at the target area.
- Droplet size: A droplet spectrum with a VMD of 250 to 280 micron is recommended. Limit the production of fine droplets, less than 150 micron (high drift and evaporation potential), to a minimum.
- Flying height: Maintain the height of the spray boom at 3 to 4 metres above the target. Do not spray when aircraft dives, is in a climb or when banking.
- Use suitable atomizing equipment that will produce the desired droplet size and coverage, but which will ensure the minimum loss of product. The spraying system must produce a droplet spectrum with the lowest possible Relative Span.
- Position all the atomizers within the inner 60 to 75 % of the wingspan to prevent droplets from entering the wingtip vortices.
- The difference in temperature between the wet and dry bulb thermometers, of a whirling hygrometer, should not exceed 8°C.
- Stop spraying if the wind speed exceeds 15 km per hour.
- Stop spraying under turbulent, unstable and dry conditions during the heat of the day.
- Spraying under temperature inversion conditions (spraying in or above the inversion layer) and/or high humidity conditions (relative humidity 80 % and above) may lead to the following:
 - a) reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage),
 - b) damage to other sensitive crops and/or non-target areas through drifting of the suspended spray cloud away from the target field.
- Ensure that the aerial spray operator knows exactly which fields to spray.

Obtain an assurance from the aerial spray operator that the above requirements will be met and that relevant data will be compiled in a logbook and kept for future reference.

APPLICATION RATES

Crop / Pest	Dosage rate	Remarks
Apples Chemical thinning of fruit		Use on Granny Smith and young Royal Gala types only under expert guidance and only if conditions do not favour fruit thinning, otherwise over thinning might result. On all of these cultivars SEVIN® XLR PLUS must not be combined with, or sprayed in a programme with other thinning remedies. Refer also to “NOTES”.
<u>Easy-to-Thin cultivars</u> e.g., Granny Smith, Standard red cultivars and Young, vigorous Royal Gala types	100 to 150 ml / 100 l water	For early thinning, apply once as a full cover spray in the period between 80 and 100 % petal fall.
	25 to 100 ml / 100 l water	For later thinning, apply once as a full cover spray in the period between 10 and 15 mm fruit diameter.
<u>Difficult-to-Thin cultivars</u> e.g., Red spur types, Braeburn, Cripps’ Red, Cripps’ Pink, full-bearing Royal Gala types, Golden Delicious types and Fuji types		Use on Golden Delicious only in areas where fruit russeting is not a problem. Refer also to “NOTES”.
	100 to 150 ml / 100 l water	For early thinning under conditions that favour fruit thinning, apply once as a full cover spray in the period between 80 and 100 % petal fall.
	100 to 150 ml SEVIN® XLR PLUS PLUS 11 ml Planofix® / 100 l water	Under conditions that do not favour fruit thinning, apply a tank mixture of SEVIN® XLR PLUS and Planofix® once as a full cover spray in the period between petal fall and 12 mm fruit diameter.
	100 to 150 ml / 100 l water	As an alternative to the above treatment, if conditions do not favour fruit thinning, a SEVIN® XLR PLUS treatment can be preceded by a Planofix® application between petal fall and 5 mm fruit diameter. Follow this with an application of SEVIN® XLR PLUS at 10 to 15 mm fruit diameter.

Crop / Pest	Dosage rate	Remarks
Apples & Pears (Refer “ WARNINGS ” for varieties that must not be treated)	IMPORTANT Refer “ Warning against Codling moth resistance ” under “ RESISTANCE WARNING ”.	Commence application at the beginning of a moth generation or at 75 % petal fall (in the case of the first generation). Repeat at 14 to 18 day intervals for a maximum of four applications.
Codling moth	100 ml / 100 l water	Apply as a full cover spray at 2 weekly intervals. To avoid possible apple thinning use an alternative registered Codling moth remedy for the first application, where after SEVIN® XLR PLUS can be used. Do not use SEVIN® XLR PLUS within 21 days after full bloom.
Leaf rollers	225 ml / 100 l water	When used in Codling moth programme, SEVIN® XLR PLUS will control Leaf rollers. However, where a single treatment is required, the dosage must be increased as prescribed. Apply as a full cover spray when pest is noticed.
Pear bud mite	100 ml / 100 l water	When used in Codling moth programme, SEVIN® XLR PLUS will control Pear bud mite provided an additional treatment is carried out by the 3 rd week of November as a full cover spray.
Mealybugs	225 ml / 100 l water	Apply as a full cover spray. Commence treatment early December and follow-up with 1 to 2 additional treatments depending on the degree of infestation. These treatments will coincide with the normal Codling moth programme. Do not apply later than mid-January, as later applications will not control this pest satisfactorily.
Castor Oil Castor oil looper (<i>Achaea</i> spp.)	225 ml / 100 l water	<u>L</u> V: Commence spraying when infestation is first noticed.
Cotton Red & Spiny bollworm, Stainers, Elegant grasshoppers, Syagrus beetles, Aphids, Leafhoppers, Leaf-eaters (<i>Anomis</i> , <i>Xanthodes</i>)	Commence cotton spraying when first buds or “squares” appear and continue treatments at 7 to 10 day intervals until the first bolls open. Re-spray if 13 mm or more rain falls within 24 hours of treatment.	
	<u>Tail boom</u> : 1050 ml / 100 l water	For tail boom apply 50 to 250 litres of the spray mixture per hectare depending on plant size.
	<u>Aerial application</u> : 1325 to 2650 ml / ha	Apply 1325 ml per hectare to cotton up to 60 cm in height or approximately 50 to 60 % canopy and thereafter 2650 ml per hectare in not less than 30 litres water per hectare. (Refer detailed “ Instructions ” above).
Field Crops Elegant grasshoppers	225 ml / 100 l water OR 2.0 ml / 10 m ²	Apply preferably to young stages.
Army worm	550 ml / ha OR 2.0 ml / 10 m ²	<u>L</u> V: Apply as a cover spray and commence treatment as soon as infestation is noticed. <u>Aerial application</u> : Apply in not less than 30 litres water per hectare. Refer to “Aerial Application”.

Crop / Pest	Dosage rate	Remarks
Grapes (Table and wine) Weevils (Snout-beetles)	225 ml / 100 l water OR 23 ml / 10 l water	When applied against Mealybugs, SEVIN® XLR PLUS will assist in the control of vine Weevils.
Mealybugs	225 ml / 100 l water OR 23 ml / 10 l water	Commence spraying as soon as the pest is noticed at the bases of young shoots. Repeat application every 3 weeks if necessary.
Gardens & Lawns Lawn caterpillar	800 ml / 100 l water OR 2.0 ml / 10 m ²	Apply as a full cover application.
Litchi, Macadamia nut & Pecan nut trees Stem and bark borers	450 ml / 100 l water	Apply approximately 50 ml of spray mix directly into each tunnel by means of a knapsack applicator for control of Stem borer or spray the lesions for bark borer control. Do not spray the entire tree. Treat only the affected areas on the stem.
Lucerne Lucerne caterpillar	1100 to 1500 ml / ha	Dosage depends on plant density and plant size. <u>LV</u> : Full cover application. <u>Aerial application</u> : Apply in not less than 30 litres water per hectare. Refer to “Aerial Application”.
Maize Maize chafer beetles	225 ml / 100 l water OR 23 ml / 10 l water	Apply as a full cover spray and repeat when necessary.
Prickly Pear & Spineless Cactus (<i>Opuntia</i> spp.) <i>Cactoblastis cactorum</i>	300 ml / 100 l water OR 30 ml / 10 l water	Apply as a coarse spray by means of a knapsack sprayer fitted with D5 nozzles. Add a wetting agent. Spray the entire plant surface to the point of run off, especially egg sticks. Commence treatment during egg stage (two generations per annum) i.e. for the Karoo area, normally during the first two weeks of March and November. For other areas treatment should commence after oviposition (egg-laying) peak, but before hatching of eggs.
<i>Cochineal</i> (<i>Dactylopius</i> spp.)	300 ml / 100 l water OR 30 ml / 10 l water	Apply as for <i>Cactoblastis</i> . Commence treatment when infestation is noticed and repeat if necessary.
Tobacco American bollworm, Tobacco slug & Army worm	<u>Ground application</u> : 225 ml / 100 l water <u>Aerial application</u> : 1750 ml / ha	Do not use against Tobacco slug if tobacco plants are fully grown. <u>HV</u> : Apply as a full cover application as soon as pest is noticed. <u>Aerial application</u> : Apply as soon as pest is noticed in not less than 30 litres water per hectare. Refer to “Aerial Application”.
Hides & Skins Domesticated hide and skin beetle larvae	450 ml / 100 l water OR 45 ml / 10 l water	Apply generously as a coarse spray or by means of a paint brush to hides and skins as well as to sheltering places such as sacking and cracks and crevices in floors and walls. Pay special attention to the flesh side of hides. Five (5) litres will be sufficient to treat approximately 50 skins or 15 hides.

NOTES

- Expert advice should be sought when using **SEVIN® XLR PLUS** for the first time to thin apples.

- Apple tree reaction to chemical fruit thinners is dependent on many interacting variables such as the degree of thinning required, environmental conditions, cultivar, rootstock, tree age, tree shape and the use of other thinning agents. Local knowledge of the abovementioned factors is essential if the desired result is to be attained.
- **SEVIN® XLR PLUS** must **NOT** be used on Golden Delicious strains in areas where retiform russetting is a problem.
- On Royal Gala up to 5 years old, apply only a single fruit thinning treatment of **Planofix®** or **SEVIN® XLR PLUS**.

PLANOFIX® is a registered trademark of **BAYER (PTY) LTD.**

SEVIN® XLR PLUS is a registered trademark of **TESSENDERLO KERLEY INC.**