

SIPERMETRIEN

Reg. No.: L4889 Act No. 36 of 1947
Namibia: N-AR 0797

An emulsifiable concentrate contact and stomach insecticide for the control of various insects as recommended.

IRAC INSECTICIDE GROUP CODE: 3

ACTIVE INGREDIENT:

Cypermethrin (pyrethroid).....200 g/l

DISTRIBUTOR:

PROTEK, a division of **PE-BEE Agri (PTY) LTD**
Co. Reg. No.: 2005/036308/07
P.O. Box 72, Heidelberg, 1438
Tel: (011) 812 9800 or 0861 PROTEK (0861 77 68 35)
www.proteksa.co.za

REGISTRATION HOLDER:

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EMERGENCY NO.: 082 446 8946

UN No.: 3351



WARNINGS: The following withholding periods minimum time between last application and harvest or grazing, are required.

Tomatoes & Cruciferae.....	4 days	Lucerne (grazing), Maize, Pasture, Sweetcorn.....	14 days	Macadamia nuts.....	30 days
Beans, Groundnuts (hay) & Peas.....	7 days	Citrus, Wine & Table Grapes.....	28 days		
Apples, Pears & Peaches.....	14 days	Cotton (grazing) & Sorghum.....	28 days		

- Handle concentrate with care.
- Harmful by contact, swallowing or inhalation.
- Irritating to eyes, respiratory system and skin.
- Very toxic to fish. Under field conditions, fish are not at risk from normal agricultural usage.
- Highly toxic to bees. No hazard to bees under normal application conditions.
- **FLAMMABLE** – do not store near open flame.
- If used as directed, not significantly hazardous to bees, various other beneficial pest parasites and predators and fish under field conditions.
- Store in a cool, dry place away from food and feedstuffs.
- Use of this material in a manner or at a time other than in accordance with directions, may cause phytotoxicity, and excessive residues or other undesirable results.
- **In case of poisoning call a doctor and make the label available to him/her.**
- **Re-entry:** Do not enter treated area within 1 day after treatment, unless wearing protective clothing.

Aerial application: Notify all inhabitants of the immediate area to be sprayed and issue the necessary warning. Do not spray over or allow to contaminate adjacent areas, rivers, dams or citrus orchards under integrated bio-control of red scale. Allow at least a 100 metre buffer strip between cotton field and orchard.

Although this remedy has been extensively tested under a large variety of conditions the registration holder does not warrant that it will be efficacious under all conditions because the action and effect thereof may be affected by factors such as abnormal soil, climatic and storage conditions: quality of dilution water, incompatibility 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, 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:

- Do not inhale fumes and/or spray mist.
- Avoid skin and eye contact.
- Wear protective clothing, suitable face mask, face shield, rubber gloves and rubber boots when handling and mixing the product and whilst applying the spray mixture.
- Wash with soap and water after use and accidental skin contact.
- 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.
- Avoid drift of spray onto other crops, grazing, rivers, dams and areas not under treatment.
- Clean application equipment after use. Dispose of wash water where it will not contaminate crops, grazing, rivers, dams and boreholes.
- **TRIPLE RINSE** empty container in the following manner: Invert the empty container over the spray or mixing tank and allow to drain for at least 30 seconds after the flow has slowed down to a drip. Thereafter, rinse the container three times with a volume of water equal to a minimum of 10 % of that of the container. Add the rinsings to the contents of the spray tank before destroying the container in the described manner.
- Destroy the empty container by perforation and flattening and dispose of it in a safe manner.
- **Never** re-use the empty container for any other purpose.
- Prevent contamination of food, feeds, drinking water and eating utensils.

SYMPTOMS OF HUMAN POISONING: If product is aspirated into the lungs during ingestion or vomiting, mild to severe chemical pneumonia may be caused. May cause burning, itching or tingling sensations of the skin which readily disappear within 24 hours after exposure. Inhalation causes nasal discharge and a scratchy throat. Symptoms of high-dose ingestion include nausea, prolonged vomiting, stomach pains and diarrhoea, which progresses to convulsions, unconsciousness and coma.

FIRST AID TREATMENT: Remove patient from source of poisoning and keep him quiet and reassured.

Eye: Flush eyes with clean gentle flowing water for at least 20 minutes, occasionally lifting upper and lower lids, until no evidence of chemical remains. If irritation occurs and persists, obtain medical attention.

Skin: Remove contaminated clothing and rinse contaminated body area thoroughly with plenty of soap and cold water, until no evidence of chemical remains. Do not rub skin. Apply olive oil to affected areas for prompt relief. Get medical attention if irritation occurs and persists.

Inhalation: Move the patient to fresh air. If breathing difficulty or irritation occurs and persists, obtain medical attention.

Ingestion: Do not induce vomiting. If the patient is alert, have the mouth thoroughly rinsed with water. Do not give anything by mouth, to unconscious person. Get medical attention.

NOTE TO PHYSICIAN: This product contains a pyrethroid and an aromatic solvent. If product is aspirated into the lungs during ingestion or vomiting, mild to severe chemical pneumonia may be caused. The stomach should be emptied as soon as possible by careful gastric lavage. Antidote is not available. Treat symptomatically and supportively. In case of ingestion, consider gastric lavage with water or 5% sodium bicarbonate solution. Convulsions should be treated with anti-convulsants. Treat discomfort due to irritation symptomatically.

RESISTANCE WARNING: For resistance management, **SIPERMETRIEN** is a group code 3 insecticide. Any insect population may contain individuals naturally resistant to **SIPERMETRIEN** and other group code 3 insecticide. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **SIPERMETRIEN** or any other group code 3 insecticide.

To delay insecticide resistance:

- Avoid exclusive repeated use of insecticide 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.

For specific information on resistance management contact the registration holder of this product.

Warning against resistance:

Resistance of African bollworm (*Helicoverpa armigera*) to synthetic pyrethroids has been confirmed.

Cotton: Synthetic pyrethroids must **only** be applied to cotton during the period 1 January to 28 February.

All other Crops: Do not respray more than two applications per growing season. If a pyrethroid gives poor performance, **do not** respray with any synthetic pyrethroid, even at a corrective dosage rate. Use a product from a different chemical group.

DIRECTIONS FOR USE: USE ONLY AS DIRECTED.

Compatibility:

- **SIPERMETRIEN** is compatible with a wide range of pesticides. However, since it is not possible for Arysta LifeScience SA to test all possible combinations, the onus lies with the user to carry out a compatibility test in the event of any uncertainty.
- Do not mix **SIPERMETRIEN** with seaweed extract or vamidothion, prothiophos, chinomethionate and amitraz.
- When spraying apples, pears and grapes a wetting agent should not be added to **SIPERMETRIEN**.
- The efficacy of **SIPERMETRIEN** can be harmed at high pH value of the spray mixture. It is more stable at a pH of around 4. Where an acidifying agent is used to lower the pH of the water, the agent must be added to the water before **SIPERMETRIEN**.
- The addition of molasses has acidifying effect and reduces evaporation of the spray mist.
- For ground application add 10% molasses by volume and 20% for aerial application.

Mixing Instructions:

- Half fill the spray tank with clean water.
- Ensure pH of water is around 4. Add a suitable buffering agent to correct pH of water if necessary.
- Measure out the required quantity of **SIPERMETRIEN** and premix this with at least 10 litres of already pH corrected water (pH 4). If any other product is to be added to the tank mixture, the required volume of that product must be premixed in similar fashion.
- Agitate water in the spray tank and add the premixed product(s) to the tank.
- Fill the spray tank with water to the required volume, while maintaining agitation to ensure thorough mixing.
- Maintain agitation during spraying.
- Use the prepared mixture immediately.
- Do not allow to stand overnight.

Ground Application:

- When using a conventional high volume sprayer or a mist blower, fit equipment with hollow cone nozzles that give medium to fine droplets.
- Ensure that the sprayers are calibrated before spraying and that thorough coverage is obtained.
- A uniform distribution must be ensured.

Aerial Application: Aerial application of **SIPERMETRIEN** 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 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 microns is recommended. Limit the production of fine droplets less than 150 microns (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 **atomising 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 atomisers 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/h.
- 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 **0** 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 nontarget 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.

USE RESTRICTIONS:

- If soil is dry do not apply for cutworm control.
- Inspect hands if it rains shortly after spraying. If necessary repeat spraying.

APPLICATION RATES: The following rates are recommended for preventative spray programmes. Refer to "Resistance Warning" on previous page.

CROP / PEST	DOSAGE	REMARKS
COTTON Africa bollworm, Red bollworm, Spiny bollworm, Stainers & Semi-(plusia) looper	Weekly spray program: 75 ml / 100 l water	Ensure overall coverage and good penetration. Ground application: Apply 200 l mixture per hectare.
	175 ml / ha	Aerial application: Apply in 30 l water.
NOTE: Apply SIPERMETRIEN from week 12 when the following larvae and/or egg infestation levels are reached: African bollworm: 2 larvae or 12 eggs on 24 plants. Red bollworm: 2 larvae or 6 eggs on 24 plants. Spiny bollworm: 2 larvae. A set program, at either 7 or 14 day intervals may be followed. Half the rate recommended above may be applied to cotton 600 mm and smaller, i.e. 100 l spray mixture per hectare in the case of ground application in the event of a severe infestation, i.e. more than 2 bollworm larvae per 24 plants, it is advisable to increase the dosage rate to the following: CORRECTIVE TREATMENT: Ground application: 500 ml / ha. Apply 200 l water. Aerial application: 500 ml / ha. Apply 30 l water. Return to the normal spray programme once the infestation levels drop to normal.		
APPLES AND PEARS Codling moth & Leaf roller	5 ml / 100 l water	Apply first spray at 75 % petal drop and repeat at 14 day intervals.
Africa bollworm	5 ml / 100 l water	Apply as a corrective treatment not earlier than 75 % petal drop. High volume application: Apply 125 to 175 ml SIPERMETRIEN per hectare. Low volume application: Apply 100 to 140 ml SIPERMETRIEN per hectare. CAUTION: Toxic to bees. Refer to compatibility on previous page.
Banded fruit weevil (Snoutbeetle)	High Volume Application: 100 l water (250 – 350 ml / ha)	Apply two sprays, the first at 75 % petal drop. Repeat 4 weeks later. Further, either a low or high volume spray can be applied during mid-January to prevent late season damage.
	Low Volume Application: 200 – 280 ml / ha	Refer to compatibility on previous page.
PASTURES Army worm	150 ml / ha	Ground application: Apply in 300 l water. Aerial application: Apply in 30 l water.
CRUCIFERAE Africa bollworm, Diamond back moth larvae & Thrips	10 ml / 100 l water	Ensure good wetting of the plant. At first signs of pest commence spraying. Repeat 10 to 14 days later.
ALL CROPS Cutworms	100 ml / ha	Apply treatment either pre or post emergence. Ensure that top 3 cm of soil is moist. Ensure that top 3 cm of soil is moist. Repeat treatment in cases of re-infestation. Ground application: 1. Overall spray. Apply in 300 l water.
	0,33 ml / 100 m plant row	2. Band spray (300m wide) Apply in at least 3 l water per 100 metre plant row.
	100 ml / ha	Aerial application: Apply in 30 l water.
FORESTRY Pine Emperor moth larvae	50 ml / ha	Aerial application: Apply in 30 l water.
Willow tree emperor moth larvae	100 ml / ha	Aerial application: Apply in 30 l water.
Wattle bagworm	100 ml / ha	Aerial application: Apply in 30 l water. Apply when the pest is noticed, usually November / December. Repeat when necessary.
GROUNDNUTS Africa bollworm	150 ml / ha	Ground application: Apply in 250 l water. Aerial application: Apply in 30 l water. Commerce spraying as soon as eggs or larvae are noticed. Repeat if necessary.
LUCERNE Lucerne caterpillar	75 ml / ha	Apply as full cover spray in 300 l water as soon as pest is noticed. Good wetting and coverage is necessary.
MACADAMIA NUTS Stink bug	20 ml / 100 l water	Commence spraying when nuts are marbles size. Repeat after 4 weeks. If necessary another spray 4 weeks later can be applied, but not later than 90 days before harvest.

CROP / PEST	DOSAGE	REMARKS
MAIZE & SWEETCORN Africa bollworm	150 ml / ha	Aerial application: Apply in 30 l water. Ensure timeous application i.e. before larvae enter tassel and not later than 80 % tassel emergence. Only larvae that come into contact with product will be controlled.
	1,5 ml / 100 m plant row	Ground application: Use in not less than 3 l water per 100 metre plant row. Ensure that nozzles are directed towards the cob.
Stalkborer	3,5 ml / 100m plant row	Apply 7 to 10 days after 5 % or more plants are infested with eggs. Larvae in the stalk or bigger than 10 mm will not be controlled. Second spray could be necessary if infestation period is over a long period.
	350 ml / ha	Ground application: Do not apply in less than 3 l water per 100 metre plant row. To ensure good coverage inside the funnel as well as on the sides of the plant, use at least two D4/35 or D5/35 nozzles per row. Aerial application: Apply in 30 l water.
PEAS Africa bollworm & Lesser army worm	150 ml / ha	Ground application: Apply in 300 – 500 l water. If necessary repeat at 14 day intervals. Aerial application: Apply in 30 l water.
PEACHES Africa bollworm	High Volume: 5 ml / 100 l water (125 – 175 ml / ha)	Apply as full colour spray at 75 % petal drop. Ensure good coverage.
	High Volume: 5 ml / 100 l water (125 – 175 ml / ha)	Full cover spray at 75 % petal drop. Repeat at 14 to 21 day intervals.
Codling moth		
False Codling moth	High Volume: 5 ml / 100 l water (125 – 175 ml / ha)	Early cultivars: A full cover spray should be applied 6 weeks before harvest and repeated at 14 day intervals. Late cultivars: A full cover spray should be applied 8 weeks before harvest and repeated at 14 day intervals. In the summer rainfall regions first application must not be later than the third week in December. Canning peaches: As above but last application can be made 3 days before harvest.
Fruit Flies	High Volume: 10 ml / 100 l water (250 – 350 ml / ha)	Early cultivars: A full cover spray should be applied 8 weeks before harvest and repeated at 14 day intervals. Canning peaches: As above but last application can be made 3 days before harvest.
Banded fruit weevil (Snoutbeetle)	High Volume: 10 ml / 100 l water (250 – 350 ml / ha)	Apply as soon as damage is noticed. Repeat after 4 weeks if necessary.
SORGHUM Africa bollworm	1,5 ml / 100 m plant row	Ground application: Direct application onto ears. Do not apply in less than 3 l water per 100 metre plant row.
	150 ml / ha	Aerial application: Apply in 30 l water.
Stalkborer	3,5 ml / 100 m plant row	Ground application: As for maize.
	350 ml / ha	Aerial application: As for maize.
TOMATOES Africa bollworm	15 ml / 100 l water	Ground application: At first signs of infestation, apply as full cover spray. Repeat at 7 to 10 day intervals or as necessitated by crop inspection.
	75 – 100 ml / ha	High volume: Apply to 500 l spray mixture per hectare in plants up to 600 mm high and up to 1000 l spray mixture per hectare to plants higher than 600mm, e.g. trellised tomatoes. Do not use more than 150 ml SIPERMETRIEN per hectare. Mist blowers: Apply in 150 l water per hectare for plants less than 600mm high. Apply in 500 l water per hectare for plants high than 600 mm. Do not use more than 150 ml SIPERMETRIEN per hectare.
BEANS Africa bollworm	15 ml / 100 l water	Apply as soon as eggs or larvae are noticed. Aerial application: Apply in 30 l water. Ground application: Apply in 300 l water. Inspect lands regularly and if necessary repeat application.