Read the label before opening the container. For full particulars, see enclosed leaflet.

KEEP OUT OF REACH OF CHILDREN AND ANIMALS

TARPINON 50 WG

South Africa Reg. No: L11338 Act No. 36 of 1947

IRAC INSECTICIDE GROUP CODE: 6

TARPINON 50 WG is a water soluble granular translaminar insecticide with stomach action for the control of various Lepidopteran pests on crops as listed.

ACTIVE INGREDIENT:

Emamectin benzoate.....50g/kg

Product Information: 072 678 8226
In case of poisoning: 082 446 8946

HAZARD STATEMENTS

- Harmful if swallowed.
- Harmful if in contact with skin.
- Causes serious eye damage.
- Causes damage to nervous system through prolonged and repeated exposure.
- Very toxic to aquatic life with long lasting effects.



DANGER

PRECAUTIONARY STATEMENTS

- Avoid release into the environment.
- Do not eat, drink or smoke when using this product.

enviro™ bio-chem

Registration holder: Enviro Bio-Chem (Pty) Ltd
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Expiry Date:
Batch No:
Date of Manufacture:

UN No. 3077

WARNINGS:

Withholding Period: Allow the following minimum number of days between last application and harvest:

Tomatoes	1 day	Soybeans	35 days
Maize	35 days	Wheat	35 days
Dry beans	35 days	Cruciferae	7 days
Barley	35 days	Leafy vegetables	7 days
Fruiting vegetables	7 days	Tree nuts	14 days
Legume vegetables	14 days		
Apples	21 days (only in combination with Methoxyfenozide 240 SC)		

NOTE:

Compliance with these withholding periods will ensure that residues do not exceed local Maximum Residue Limits, but the import tolerances of other countries might possibly be exceeded. If the crop to be treated is intended for export, consult the relevant importer or exporting body regarding the use of this product, Maximum Residue Limits and recommended withholding periods.

- Harmful if swallowed.
- Harmful if in contact with skin
- Causes serious eye damage.
- Causes damage to nervous system.
- Causes damage to nervous system through prolonged and repeated exposure.
- Very toxic to aquatic life with long lasting effects
- Store in a cool place.
- Store away from food and feed.
- Keep out of reach of children, uniformed persons and animals.
- **Re-entry:** Do not enter treated area until spray deposit has dried unless wearing protective clothing

Although this remedy has been extensively tested under a large variety of conditions the registration holder does not warrant that it will be 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 to the remedy concerned as well as by the method, time and accuracy of application. The registration holder further 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 event of any uncertainty.

PRECAUTIONS:

- Wash hands and face thoroughly after handling.
- Do no breathe mist/spray.
- Do not eat, drink or smoke when using this product.
- Avoid release into the environment.
- Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to so. Continue rinsing.
- If exposed or concerned: Call a POSION CENTER
- Collect spillage.
- Take off contaminated clothing and wash it before reuse.
- Store locked up.
- Dispose of content/container to suitable landfill in accordance with local regulations
- 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 empty container three times with a volume of water equal to a minimum of 10% of that of the container. Add the rinsings to the content of the spray tank. Empty containers should be taken for local recycling or waste disposal. Do not re-use empty containers.

RELEVANT SUBSTANCES:

Emamectin benzoate 5%

FIRST AID TREATMENT:

If poisoning is suspected, stop working immediately and call a physician. Show label to the physician.

INHALATION: Move the victim to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest.

INGESTION: Seek medical advice immediately and show this container or label. Have person sip glass of water if able to swallow. Do NOT induce vomiting unless told to do so by the physician.

EYE CONTACT: Hold eyes open and rinse slowly and gently with water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.

SKIN CONTACT: (or hair): Remove all contaminated clothing immediately and thoroughly wash the effected parts of the body with water for 15 – 20 minutes. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.

Note: Never give anything by mouth to an unconscious patient.

TREATMENT:

Vomitting within one-half hour of xposure can minimize toxicity following accidental ingestion of the product; rapidly after exposure (< 15 minutes) administer repeatedly medical charcoal in a large quantity of water.

If toxicity from exposure has progressed to cause severe vomiting, the extent of the resultant fluid and electrolyte imbalance should be gauged. Appropriate supportive parenteral fluid replacement therapy should be given, along with other required supportive measures (such as maintenance of blood pressure levels and proper respiratory functionality) as indicated by clinical signs, symptoms and measurements.

In severe case, observations should continue for at least several days until clinical condition is stable and normal. Since emamectin benzoate is believed to enhance GABA activity in animals, it is probably wise to avoid drugs that enhance GABA activity (barbiturates, benzodiazepines, valproic acid) in patients with potentially toxic emactin benzoate exposure.

RESISTANCE WARNING:

TARPINON 50 WG is a **group 6** insecticide. Any insect population may contain individuals naturally resistant to **TARPINON 50 WG** and other **group code 6** insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly and exclusively in programs. **TARPINON 50 WG** or any other **group code 6** insecticides may not control these resistant insects.

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 programs.

Please note that both abamectin and emamectin benzoate belongs to **group 6** insecticides. Do not tank mix these two products or apply **TARPINON 50 WG** within 3 weeks prior to or after an abamectin application.

Enviro Bio-Chem (Pty) Ltd. cannot accept responsibility for any losses that may result from the failure to control pests resistant to TARPINON 50 WG.

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

PRODUCT PROPERTIES:

TARPINON 50 WG is effective for the control of Lepidoptera larvae. **TARPINON 50 WG** is translaminar and is rapidly absorbed into the plant. **TARPINON 50 WG** is effective against Lepidoptera larvae resistant to organophosphates, pyrethroids and insect growth regulators. After **TARPINON 50 WG** ingestion, larval feeding stops, and death occurs within 4 days.

DIRECTIONS FOR USE: USE ONLY AS DIRECTED

Poisons Helpline: 0861 555 777

Thorough and even coverage of the crop is essential. Do not apply during the heat of the day or if the plants are wet or if rain is imminent.

Mixing Instructions:

Fill the spray tank to a quarter with clean water. Measure out the required quantity of **TARPINON 50 WG** and add to the tank. Fill spray tank with water while maintaining agitation to ensure thorough mixing. Maintain agitation during spraying. Use the prepared mixture immediately. Do not prepare more spray mixture than is needed for immediate application. Do not allow to stand overnight.

APPLICATION RATES:

CROPS	DOSAGE	REMARKS
APPLES Codling moth *Cydia pomonella*	20g TARPINON 50 WG +60mℓl Methoxyfenozide 240 SC/100ℓ water at 14 day intervals	Start application at onset of the 1st, 2nd or 3rd generation. Ensure that an effective control programme precedes the Methoxyfenozide 240SC /**TARPINON 50 WG** programme. Apply as a full cover spray for the control of codling moth. Thorough wetting is essential. For the second moth generation, start with applications at the onset of this generation. Repeat applications every fortnight for a maximum of 4 applications per generation. In order to prevent or impede the development of resistance, use products with different modes of action against the other two moth generations. Do not exceed a maximum of 4 applications per season. Ensure thorough coverage. Refer to the IRAC resistance guidelines.
CRUCIFERAE **(Includes broccoli, brussel sprouts, cabbages, cauliflower only)** Diamondback moth *(Plutella xylostella)* African bollworm *(Helicoverpa armigera)* Armyworms *(Spodoptera spp.)*	336g/ha	Spray at first signs of insect infestation as indicated by local spray thresholds. Use the lower rate on low to moderate infestations. Add a non-ionic wetter/spreader/penetrant surfactant at the appropriate label rate. Do not make more than 4 applications to any brassica crop and where more than one crop is grown do not make more than 4 **TARPINON 50 WG** applications in any one year.
FRUITING VEGETABLES **(Includes eggplant and peppers)** African Bollworm *(Helicoverpa armigera)* Armyworms *(Spodotera spp.)*	150-336g/ha	Apply when larvae are first observed. Applictions may be repeated to maintain control and allow a minimum of 7 days between applications. Apply in sufficient water to ensure good coverage. Do not apply more than 336 g/ha per application and do not apply more than 2 017g/ha per season.

CROPS	DOSAGE	REMARKS
LEAFY VEGETABLES (Includes lettuce, spinach and celery) African Bollworm *(Helicoverpa armigera)* Armyworms *(Spodotera spp.)*	150-336g/ha	Spray at first signs of infestation as indicated by local spray thresholds. For best results apply soon after the Helicoverpa armigera eggs have hatched. Do not make more than 4 **TARPINON 50 WG** applications per crop and where more than one crop is grown do not make more than 4 **TARPINON 50 WG** applications in any one year. Ensure thorough spray coverage. Use the low rate when targeting light infestations of small larvae and higher rates during periods of heavy infestations or under very hot and sunny conditions.
MAIZE, SOYBEANS, LEGUME VEGETABLES (succulent seeds and immature pods; includes peas (green) and beans (green)), DRY BEANS, WHEAT and BARLEY Armyworms *(Spordoptera spp.)* False armyworm *(Leucania loreyi)*	200g/ha **TARPINON 50 WG** + 500-1000mℓ/ha Lufenuron 50 EC	Apply **TARPINON 50 WG** as a tank-mix with Lufenuron 50 EC at the first signs of infestation. Apply as a block of 2 applications 7 days apart and then alternate with products with a different mode of action, e.g Chlorantraniliprole 100 g/ℓ + Lambda-cyhalothrin 50 g/ℓ CS. Note: For MAIZE, apply as soon as feeding damage is observed (small window in the leaves), when larvae are still outside the cobs. Once inside, larvae will not be controlled.
TOMATOES TOMATOES African Bollworm *(Helicoverpa armigera)* Tomato semi-looper *(Chrysodeixis acuta)*	200g/1000ℓ water	Apply as soon as pest is noticed in a block of two applications 7 days apart. Do not apply the second **TARPINON 50 WG** block application within 3 weeks of the first block application. If re-infestation occurs within 3 weeks of the second TARPINON 50 WG application, not related chemistry should be used e.g. group 5 – Spinosad, group 13 – Chlorfenapyr or group 22 – Indoxacarb. Do not exceed 4 applications per crop cycle. Do not use less than 200 g **TARPINON 50 WG** /ha. Use a penetrant/wetter or light mineral oil with TARPINON 50 WG. Do not add a sticker.
TREE NUTS (Includes almonds, macadamias and pecans) Codling Moth *(Cydia pomonella)* False codling moth *(Cryptophleba leucotreta)* African Bollworm *(Helicoverpa armigera)* Leafrollers	22 - 34g/100ℓ water	Apply as needed, using locally recommended scuting and monitoring techniques. Timing and frequency of applications should be made at first signs of insect infestation as indicated by local spray threshold. For best results apply soon after pest eggs have hatched. Treatment must be made before larvae penetrate fruit or stems. Thorough spray coverage is critical. Apply in sufficient water to ensure coverage. For best results, it is recommended that TARPINON 50 WG be applied with spray oil (non-dormant). Use the lowest rates for low to moderate infestations and the highest rate for high infestations. Applictions may be repeated to maintain control, typically at 7 days intervals.

REMARKS:

High volume application:
The water volume to be applied per hectare must be calculated according to the Tree Row Volume (TRV) formula:

$$\ell/ha = \frac{Tree\ height\ x\ Tree\ diameter\ x\ 937}{Row\ Width}$$

The **TRV** calculation is the water volume required when the trees are in full leaf. Use the water volume required per hectare to calculate the amount of **TARPINON 50 WG**/ Methoxyfenozide 240 SC required during the various growth stages of a tree during the season.

Water requirements per hectare as recommended according to the different growth stages of a tree:

GROWTH STAGE	% HIGH VOLUME WATER REQUIREMENT / HA
From green tip to ± 30 % blossom	60%
From ± full blossom to ± middle November	80%
From ± beginning December	100%

Low volume:
When **TARPINON 50 WG** Methoxyfenozide 240 SC is applied as a low volume spray, ensure that the correct amount of product as calculated for the high-volume requirement is applied per hectare.

SUCCESSFUL CODLING MOTH CONTROL MANAGEMENT:

- It is recommended that **TARPINON 50 WG**/ Methoxyfenozide 240 SC be used in conjunction with the pheromone mating disruption technique.
- Codling moth resistance levels against organophosphates may vary in orchards. Control techniques should be adjusted accordingly.
- Do not neglect cultural practices such as pruning, thinning and the collection and destroying of thinned and infested fallen fruit.
- Best results may be expected with **TARPINON 50 WG**/ Methoxyfenozide 240 SC if the recommended spray volumes are used.

Apply the following anti-resistance strategy for the control of Codling moth:

- Apply compound from different chemical groups against each moth generation.
- Four **TARPINON 50 WG**/ Methoxyfenozide 240 SC applications at fortnightly intervals are recommended for the control of moth generations. To ensure maximum efficacy, this programme should not be interrupted by the use of other compounds. Ensure that the correct amount of **TARPINON 50 WG**/ Methoxyfenozide 240 SC per hectare is applied as calculated from the Tree Row Volume (TRV) formula (see above).
- When **TARPINON 50 WG**/ Methoxyfenozide 240 SC is used for the last generation of a specific season (in cases where only two generations were present), products with a different mode of action must be used for the first generation of the following season.