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

KEEP OUT OF REACH OF CHILDREN AND ANIMALS

RESTRICTED USE AGRICULTURAL REMEDY

THIS REMEDY IS RESTRICTED DUE TO ACUTE TOXICITY. THIS REMEDY MAY ONLY BE SOLD TO AND USED BY REGISTERED PEST CONTROL OPERATOR, OR BY SOMEONE UNDER THE SUPERVISION OF A REGISTERED PEST CONTROL OPERATOR, AND ONLY FOR THOSE USES COVERED BY THE PEST CONTROL OPERATOR'S SCOPE OF REGISTRATION, AND ONLY AS DIRECTED ON THIS LABEL.

FENAMIPHOS

South Africa Reg. No: L9470 Act No. 36 of 1947

IRAC INSECTICIDE GROUP CODE: 1B

A systemic soil applied emulsion concentrate for the control of nematodes on potatoes, citrus, pineapples, grapes, peaches, nectarines, groundnuts, onions and tobacco and a leaf treatment on potatoes for the control of nematodes and aphids only in the Western Cape.

Product Information: 072 678 8226
In case of poisoning: 082 446 8946
Poison Centre: +27 861 555 777

ACTIVE INGREDIENT:

Fenamiphos (organo phosphate).....400g/ℓ

HAZARD STATEMENTS

- Flammable liquid and vapour
- Fatal if swallowed
- May be fatal if swallowed and enters airways
- Fatal in contact with skin
- Causes skin irritation
- Causes serious eye damage
- Fatal if inhaled
- May cause respiratory irritation
- May cause drowsiness or dizziness
- May cause damage to organs through prolonged or repeated exposure
- Very toxic to aquatic life with long lasting effects



PRECAUTIONARY STATEMENTS

- Do not handle until all safety precautions have been read and understood.
- Do not eat, drink, or smoke when using this product.

enviro™ bio-chem

Registration holder: Erintrade cc t/a RT Chemicals
Co. Reg. No: CK2001/036403/23
44 Kerk Street, Lichtenburg NW, South-Africa
Tel: +27 12 006 0063 | Fax: +27 86 541 7948
Web: www.envirobiochem.co.za

Expiry Date:
Batch No:
Date of Manufacture:

UN No. 3017

WARNINGS:

Withholding period:

Potatoes	42 days	Onions	80 days
Tobacco	42 days	Grapes	100 days
Pineapples	56 days	Peaches	100 days
Groundnuts	63 days	Citrus	150 days

NOTE: The above recommended withholding period from last application to harvest will meet the local residual requirements but is not guaranteed to meet export requirements.

- Flammable liquid and vapour
- Fatal if swallowed
- May be fatal if swallowed and enters airways
- Fatal in contact with skin
- Causes skin irritation
- Causes serious eye damage
- Fatal if inhaled
- May cause respiratory irritation
- May cause drowsiness or dizziness
- May cause damage to organs through prolonged or repeated exposure
- Very toxic to aquatic life with long lasting effects
- Toxic to fish, bees and wildlife.
- Keep out of reach of children, uninformed persons and animals.
- Store under lock and key, away from food and feedstuffs.
- **Inflammable** – do not store or handle near open flame.
- **In case of poisoning, call a doctor immediately and make label available to him.**

Although this acaricide 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 effected by factors such as abnormal soil, climatic and storage conditions; quality of dilution water, compatibility with other substances not indicated on the label and the occurrence of resistance of the pest against the remedy concerned as well as by the method, time and accuracy of the 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 event of any uncertainty.

PRECAUTIONS:

- Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources.
- Keep container tightly closed.
- Do not breathe dust/fumes/gas/mist/vapours/spray.
- Do not get in eyes, on skin, or on clothing.
- Wash face, hands, and any exposed skin thoroughly after handling.
- Do not eat, drink, or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Wear protective gloves/protective clothing/eye protection/face protection). Wear respiratory protection.
- After use and in case of accidental skin contact, wash thoroughly with soap and water.
- Take off contaminated clothing.
- Use only outdoors or in a well-ventilated area.
- Prevent contamination of food, feedstuff, eating utensils and drinking water.
- Prevent drift of spray mist onto other crops, grazing, rivers, dams or areas not under treatment.

- 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.
- Clean applicator after use and dispose of wash water where it will not contaminate crops, grazing, dams or rivers.

RELEVANT SUBSTANCES:
Fenamiphos 42%
Dimethylbenzene <40%
Calcium dodecyl benzene sulphonate <10%

SYMPTOMS OF HUMAN POISONING:
This is a cholinesterase inhibitor. Symptoms of human poisoning are malaise, weakness, headache, nausea, vomiting, giddiness and anorexia.

FIRST AID TREATMENT:
INGESTION: Immediately call a POISON CENTER or doctor/physician.
INHALATION: Remove person to fresh air and keep comfortable for breathing.
SKIN CONTACT: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention
EYE CONTACT: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

NOTE TO PHYSICIAN:
This is an organophosphate insecticide. If symptoms of poisoning are present, the administration of atropine sulphate is indicated. 2-PAM may also be administrated. Do not give morphine.

RESISTANCE WARNING:
For resistance management, **Fenamiphos** is a **group code 1B** insecticide. Any insect population may contain individuals naturally resistant to **Fenamiphos** and other **group code 1B** insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **Fenamiphos** or any other **group code 1B** 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 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.

DIRECTIONS FOR USE: Use only as directed
Compatibility:
The compatibility of **Fenamiphos** with other products has not yet been tested and may be influenced by the formulation of the products involved as well as the quality of the water.

Mixing instructions:
Pre-mix the required quantity of **Fenamiphos** with a small volume of clean water. Half fill the spray tank with water and add the slurry while the water in the tank is being stirred. Add water to make up the desired spray volume. Keep the spray mixture agitated during mixing and spraying.

Spraying should be carried out on cool, windless days with rapid drying conditions.
TOBACCO: To avoid possible crop damage Fenamiphos foliar sprays should only be applied under cool conditions onto healthy actively growing tobacco plants that are not under water stress.

POTATOES: In the case of potatoes, good coverage of the plants is essential. The plants should be in a state of healthy growth and not subject to stem and foliage factors such as blight, tubermoth and hail. Similarly the plants should be free from weed competition. Healthy seed tubers of uniform maturity should be planted in order to ensure simultaneous emergence, which is important.

Under certain conditions **Fenamiphos** will cause deformed leaves and necrotic spots may also occur. The leaf symptoms differ from those caused by virus diseases and will not be mistaken by Plant Pest Control Inspectors. Seed potato producers should inform inspectors when using **Fenamiphos**. When heavy nematode infestations occur, **Fenamiphos** will control the problem but potato producers should not expect an absolutely clean crop. Dry conditions after application may lead to reduced efficacy. The potatoes should be lifted as soon as the full crop potential is reached. The practice of storing potatoes in the ground may result in a late nematode infestation.

CITRUS: For plant densities of more than 300 trees/ha the maximum application rate per tree becomes proportionately less so as not to exceed the maximum application rate of 30 liter **Fenamiphos**/ha or 100 mℓ/basin. Refer to table below:

	Application rate in mℓ product/m² basin area				
NO OF TREES/HA	BASIN AREA				
	4m²	6m²	8m²	10m²	12m²
200	10	10	10	10	8
250	10	10	10	10	8
300	10	10	10	8	8
350	10	10	10	7	7
400	10	10	9	6	6
450	10	10	8	5	5
500	10	10	7	5	5
550	10	9	6	4	4

CROP	DOSAGE	REMARKS
TOBACCO Root-knot nematodes Tobacco spider mite	<u>Before transplanting:</u> Soil fumigation	Fumigate soil prior to planting with a registered soil fumigant.
	<u>After transplanting:</u> 3ℓ in 500ℓ water/ha	1. Apply as a directed foliar spray onto the leaves below the growing point (heart) of the plant three weeks after transplanting. 2. Repeat the above application 5 to 6 weeks after transplanting. **Warning: do not apply during hot, dry conditions on plants that are under water stress.** This treatment will also control tobacco spider mite if present at the time of application.
GROUNDNUTS Nematodes *(Ditylenchus destructor)*	4 - 8ℓ/ha	**Irrigated lands:** Apply immediately after planting as an overall treatment in approximately 300ℓ water/ha. Irrigate immediately after application. **Dry lands:** Apply as an overall treatment in approximately 500ℓ water/ha and incorporate mechanically (e.g. by harrowing) to a depth of 7.5cm before planting. Sufficient rainfall is necessary for optimal efficacy of Fenamiphos. Use the lower rate on dry lands crops or where nematode pressure is less.

CROP	DOSAGE	REMARKS
POTATOES **All areas except Northern Cape and North West Province** Nematodes	250mℓ/100m plant furrow (25ℓ/ha for rows 1m apart)	Draw the planting furrows. Spray the Fenamiphos onto total furrow area, plant potatoes, then close furrows.
	150mℓ/100m plant furrow (15ℓ/ha for rows 1m apart)	Use the lower dosage on table potatoes in the Eastern Highveld of Mpumalanga. Use only on 4 year rotation crop on lands with a low infestation for July-August plantings. Apply as directed above.
POTATOES **Northern Cape Only** Nematodes	**Before planting:** Soil Fumigation	Fumigate the land with a registered fumigant prior to transplanting.
	Followed by 250mℓ/100 m plant furrow (25ℓ/ha for rows 1m apart)	Draw the planting furrows. Spray the **Fenamiphos** onto the total furrow area, plant potatoes, then close furrows.
POTATOES **Western Cape Only** Nematodes and Aphids	**Before planting:** Soil Fumigation	Fumigate the land with a registered fumigant prior to transplanting.
	Apply 4ℓ in 450 - 500ℓ water/ha. A total of six (6) sprays are required.	The first three sprays should be applied at weekly intervals commencing about 7 - 10 days after the emergence of the plants. The fourth and subsequent sprays are applied at 14 - day intervals. Spray nozzles should be mounted so as to direct the spray tot the plant rows ensuring full coverage.
CITRUS Nematodes **Young non-bearing trees**	10mℓ/m² basin area	Apply evenly to the soil surface in the basin area, after the trees have become established and repeat annually in Spring. Irrigate immediately after application with at least 25 mm water.
Bearing Trees	**Initial treatment:** 4 - 10mℓ/m² basin area	Apply in Spring evenly to the soil surface in tree basin area. Irrigate immediately after application with at least 25mm water. Application rate depends on number of trees/ha and size of basin area - see label under "Directions for use". **Do not exceed 30ℓ product/ha or 100mℓ/basin. See "directions for use".** Do not use on lemons and kumquats.
	Maintenance treatment: 5mℓ/m² basin area	Apply the following season in Spring as indicated above. Thereafter repeat annually.
ONIONS Nematodes	7,5ℓ/ha	**Bulb and transplanted onions:** Apply evenly to the soil in at least 250 ℓ water prior to planting or transplanting and incorporate mechanically (e.g. shallow disc). Application can also be made immediately after planting or transplanting. Incorporation immediately after application by means of overhead irrigation.

CROP	DOSAGE	REMARKS
TOMATOES Rootknot nematodes	<u>Pre-plant soil treatment:</u> 250mℓ/100m row in 30cm wide band over the row	Apply 250mℓ/100 m row in 30cm wide band over the planting row. Apply to the land prior to transplanting at any time from two weeks before until immediately before transplanting. Calibrate the applicator with clean water before the actual application in order to determine the volume of water the applicator requires to cover the required distance of band treatment. Mix the dosage prescribed in the volume of water thus determined. After the **Fenamiphos** is applied it should immediately be incorporated lightly into the top layer of soil by mechanical means or by sprinkler irrigation. Under careful supervision, it could also be applied onto standing irrigation water diverted into planting basins. Avoid washing the material away with strong flooding while it is still on the soil surface.
VINEYARDS Nematodes	2,5mℓ/m² (250mℓ/2,5ℓ water/100m row as a 1m wide band over the row)	**Fenamiphos** must be applied as a 50 cm wide band on either side of the vine row (the bank) to a weed free surface, either as a Spring application 14 days before expected bud burst or as an Autumn application directly after harvest. **Fenamiphos** must be incorporated in the soil either by sufficient rain in order to wash the product into the soil or by irrigation. If at least 20 mm of rain has not fallen within 14 days of application, then incorporate by means of irrigation, applying 13 mm followed by a further 13 mm water 10 days later. **NOTE: Fenamiphos** may be applied through a suitable calibrated microjet irrigation system provided application is according to directions for use as under "Remarks" above.
PEACHES **including Nectarines** Nematodes NOTE: Leaf damage may occur when low quality trees are treated.	2,5mℓ/m² in 2ℓ water	Apply within six weeks after establishment of the young trees, in Spring and again in March to April. Repeat the two applications during the second year. Apply the mixture to an area of 1m² around each tree. Hereafter a post harvest treatment may be applied annually if necessary. Apply at a rate of 2.5mℓ/m² to the drip area. In the case where trees are planted 2 metre or less apart, the mixture can be applied continuously on a 1 metre bankie over the row of trees. The soil should be moist, weed-free and bare. Incorporate after application by irrigation with 13 mm water followed by 13mm water 10 days later.
PINEAPPLES Nematodes	6,25ℓ in a minimum of 1 000ℓ water/ha	Apply by ground-rig. Use only on plant crop. **A total of three sprays per crop cycle is required** The first foliar spray should be applied at the first signs of root formation. Two subsequent sprays are applied at three-month intervals. Spray nozzles should be mounted so as to direct the spray onto the rows, ensuring full coverage. Flower inducing chemicals should not be applied within three months of the last **Fenamiphos** foliar spray. Very dry or wet conditions can adversely influence the treatment. Slight chlorosis, which disappears with time, may occur after treatment.