

# VILLA NEMACUR<sup>®</sup> 240 CS

# SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** NEMACUR<sup>®</sup> 240 CS  
**Other identifier:** Fenamiphos 240 g/l  
**Recommended use:** Nematicide  
**Restrictions on use:** Agriculture, Home & Garden and Turf

**Supplier:** Villa Crop Protection (Pty) Ltd.  
 PO Box 10413  
 Aston Manor, 1630, South Africa

**Telephone:** (011) 396 2233

**Fax:** (011) 396 4666

**Website:** [www.villacrop.co.za](http://www.villacrop.co.za)

### Emergency telephone numbers:

#### 24 Hr Transport / Spill emergency no:

(Hazcall24) +27 86 044 4411

(Client: Villa Crop Protection)

Griffon Poison Information Centre +27 82 446 8946

(Client: Villa Crop Protection)

#### Poisoning Emergency telephone numbers:

Griffon Poison Information Centre +27 82 446 8946

Poisons Information Centre +27 861 555 777

## 2. HAZARDS IDENTIFICATION

UN GHS, Regulation EC 1272/2008 [EU-GHS/CLP] EU & SANS 10234:2008		
Hazard classes	Hazard categories	H-statements
<b>Physical</b>		
Flammable	Flam. Liquid 4	H227
<b>Health</b>		
Oral	Acute Tox. 3	H301
Dermal	Acute Tox. 3	H311
Specific Target Organ Toxicity Single Exposure	STOT SE 1	H370
<b>Environment</b>		
Aquatic acute	Aquatic acute 1	H400
Aquatic chronic	Aquatic chronic 1	H410

### The most important adverse effects:

#### Physiochemical effects:

Combustible liquid.

#### Human health effects:

Causes damage to organs.

#### Label elements:



**Signal word:** Danger

#### Hazard statements:

H227: Combustible liquid.

H301: Toxic if swallowed.

H311: Toxic in contact with skin.

H370: Causes damage to organs.

H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

#### Precautionary statements:

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P260: Do not breathe mist/spray.

P264: Wash skin and eyes thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P273: Avoid release to the environment.

P280: Wear impervious rubber gloves and chemical safety goggles.

P301+P310: IF SWALLOWED: Immediately call a POISON CENTER.

P302/352: IF ON SKIN: Wash with plenty of water and soap.

P312: Call a poison centre/doctor if you feel unwell. P330: Rinse mouth.

P308+P311: IF exposed or concerned: Call a POISON CENTER.

P361/364: Take off immediately all contaminated clothing and wash before reuse.

P391: Collect spillage.

P405: Store locked up.

P501: Dispose of contents/container in accordance with local regulations.

#### Special labelling of certain mixtures:

None known.

#### Other hazards:

None known.

#### Toxicity:

Classification according to GHS: Category 3

Classification according to WHO: II

Classification according to GPIC of active: IB

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

**Substance/Mixture:**

Mixture

**Composition:**

Chemical Name	CAS	Conc. (m/v %)	Classification EC 1272/2008
Fenamiphos	22224-92-6	24%	Acute Tox. 2 (H300) Acute Tox. 2 (H310)

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			Eye Irrit. 2 (H319) Acute Tox. 2 (H330) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Solvent naphtha (petroleum), heavy arom.	64742-94-5	≤ 17%	Asp Tox. 1 (H304)
Methanol	67-56-1	≤ 1.8%	Flam. Liq. 2 (H225) Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) STOT SE 1 (H370)

contaminated clothing and do not reuse without thorough cleaning with detergent and hot water. Dispose of heavily contaminated clothing, including shoes, as a hazardous waste. Do not wait for laboratory confirmation to treat patients with strong clinical evidence of poisoning. In the USA and other countries, contact your local or national poison control center for more information. Establish airway and oxygenation. IV Atropine sulfate is the antidote of choice against parasympathetic nervous stimulation. If there are signs of parasympathetic stimulation, Atropine Sulfate should be injected at 10 minutes intervals in doses of 1 to 2 milligrams until complete atropinization has occurred. Pralidoxime chloride (2 PAM chloride) may also be used as an effective antidote in addition to and while maintaining full atropinization. In adults, an initial dose of 1 gram of 2-PAM should be injected, preferably as an infusion, in 250 cc of saline over a 15 to 20 minute period. If this is not practical, 2-PAM may be administered slowly by intravenous injection as a 5% solution in water over not less than 2 minutes. After about an hour, a second dose of 1 gram of 2-PAM will be indicated if muscle weakness has not been relieved. For infants and children, the dose of 2-PAM is 0.25 grams. Avoid morphine, aminophylline, phenothiazine, reserpine, furosemide and ethacrynic acid. Clear chest by postural drainage. Oxygen administration may be necessary. Observe patient continuously for 48 hours. Repeated exposure to cholinesterase inhibitors may without warning cause prolonged susceptibility very small doses of any cholinesterase inhibitor. Allow no further exposure until time for cholinesterase regeneration has been attained as determined by a blood test. Bathe and shampoo contaminated skin and hair. If ingested, empty stomach; activated charcoal is useful to further to further limit absorption. If victim is alert, Syrup of Ipecac (2 tablespoons in adults, 1 tablespoon in small children) is indicated. If symptoms such as loss of gag reflex, convulsions, or unconsciousness occur before emesis, gastric lavage should be considered following intubation with a cuffed indotracheal tube.

## 4. FIRST AID MEASURES

Remove the victim from the area of exposure. Wash off remaining material with plenty of water. In the event of any complaints or symptoms, avoid further exposure. Immediately consult a doctor.

**Inhalation:** Remove person from contaminated area to fresh air. If breathing stops, provide artificial respiration. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. **Seek medical attention immediately.**

**Skin:** Remove contaminated clothing immediately and wash before re-using. Flush skin with water and then wash with soap and water. Seek medical attention if you feel unwell or skin irritation persists.

**Eyes:** Flush eyes with clean water for at least 15 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. **Seek medical attention.**

**Ingestion:** Seek medical attention or call a poison control centre for treatment advice. Do not induce vomiting unless instructed to do so by a poison control centre or doctor. If vomiting occurs, keep head low to avoid aspiration of stomach content. Do not give anything by mouth to an unconscious person.

**Anticipated acute effects:**

Toxic if swallowed.  
 Toxic in contact with skin.  
 Causes damage to organs.

**Anticipated delayed effects:** None known.

**Most important symptoms/effects:** None known.

**Advice to physician:** Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed. This product is an Organophosphate (OP) Insecticide. Do not handle the patient without the following protective equipment in place: chemical resistant gloves and apron (preferably nitrile). Remove

## 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media:** Use carbon dioxide, dry chemical, water fog or foam.

**Unsuitable Extinguishing Media:** Water jet. Use a water jet only to cool heated containers.

**Specific hazards:** The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed.

**Special Fire Fighting Procedures:** Remove spectators from surrounding area. Isolate the fire area and evacuate all personnel downwind of the fire. Fight fire from maximum distance and use unmanned hose holder or

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monitor nozzles. Keep upwind. Avoid inhaling hazardous vapours and fumes from burning materials. Remove container from fire area if possible and without risk. Do not use high volume water jet, due to contamination risk. Do not scatter the burning material. Water can be used to cool unaffected containers but must be contained for later disposal. Contain fire control agents for later disposal. Avoid pollution of waterways by run-off from the site.

**Personal protective equipment:** Wear NIOSH/MSHA approved self-contained breathing apparatus and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Avoid contact with skin.

**Protective equipment:** Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill involving this product.

**Emergency procedures:** Alert firefighting personnel, evacuate unprotected personnel and animals.

**Environmental Precautions:** Keep spilled product from entering sewers, waterways or ground water.

**Methods and Materials for Containment:** Contain spilled product by diking area with sand or earth.

**Methods and Materials for Clean-up:** Cover contained spill with an inert absorbent material such as sand, vermiculite, earth or other appropriate material. Vacuum, scoop, or sweep up material and place the material into a clean, dry, sealable container. Label containers with the contents and dispose of according to local regulations. Do not place spilled material back in original container. Do not re-use spilled material. Collect washings and add to the drums already collected. Do not flush spilled material or washings into drains or waterways. To decontaminate the spill area, tools and equipment, wash with water and suitable detergent. See section 13 for disposal considerations.

## 7. HANDLING AND STORAGE

**Handling:**

**Precautions for safe handling:** Toxic if swallowed. Avoid contact with skin. Ensure adequate ventilation during handling and use. Do not handle broken packages without protective equipment. Immediately clean up spills that occur during handling. Keep containers closed when not in use. In the case of contact with the product refer to First Aid Measures – Section 4.

**General occupational hygiene:** Practice good hygiene when using this material. Wash hands before eating, drinking, chewing gum, smoking, using the toilet or applying cosmetics. Worker should shower at the end of each workday. Launder all clothing before it is re-used again.

**Storage:**

**Conditions for safe storage:** Store in its original container in dry, cool, well-ventilated area. Do not store near heat, open flame, sources of ignition or hot surfaces.

Not to be stored next to foodstuffs, feed and water supplies. Keep out of reach of children, uninformed persons and animals. Do not contaminate other pesticides and fertilizers.

**Incompatible substances and mixtures:** Refer to product label.

**Packaging material:** HDPE packaging in carton box or HDPE packaging in aluminium foil + Kraft bags

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Permissible concentration:** No occupational exposure limits has been determined for the significant ingredients in this product.

**Engineering Controls:**

It is essential to provide adequate ventilation. The measures appropriate for a particular worksite depend on how this material is used and on the extent of exposure. Local Exhaust: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs or other specified exposure limits. Local exhaust ventilation is preferred. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.

**Personal Protective Equipment:**

**Respiratory Protection:** For most well-ventilated conditions, no respiratory protection should be needed. If used in a poorly ventilated area (airborne concentrations exceed exposure limits), use a NIOSH approved air-purifying respirator with cartridges/canisters approved for organic vapours.

**Hand Protection:** The use of chemically protective gloves is recommended to prevent against skin contact.

**Eye Protection:** The use of chemical safety goggles is recommended to prevent against eye contact. Contact lenses are not protective eye devices.

**Skin and Body Protection:** Employee must wear appropriate protective (impervious) clothing; boots, hat and equipment to prevent repeated or prolonged skin contact with this substance.

**Emergency eyewash:** Where there is any possibility that an employee's eyes may be exposed to this substance; the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Opaque white liquid.

**Odour:** Characteristic.

**pH (1% aqueous solution):** 7.4 – 8.4

**Melting point:** Not available.

**Freezing Point:** Not available.

**Boiling Point:** Not available.

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**Flash Point:** > 90 °C.  
**Flammability:** Combustible liquid.  
**Upper/lower explosion limits:** Not available.  
**Vapour Pressure (mm Hg):** Not available.  
**Relative Vapour Density:** Not available.  
**Density/Relative density:** Not available.  
**Solubility:** Not available.  
**n-octanol/water partition coefficient:** Not available.  
**Auto-ignition temperature:** Not available.  
**Decomposition temperature:** Not available.  
**Viscosity:** 80 - 286 m<sup>2</sup>/s OECD 114 @ 40°C

## 10. STABILITY AND REACTIVITY

**Chemical Stability:** The product is stable for two years at ambient temperature and pressure, under normal storage and handling conditions. Avoid storage under extreme temperatures and conditions. Store below 50 °C, preferably below 30 °C, and not for prolonged periods in direct sunlight.  
**Reactivity:** None known.  
**Possibility of Hazardous Reactions:** Will not occur.  
**Conditions to Avoid:** Heat, flames and sparks. Contact with incompatible materials.  
**Incompatible Materials:** Strong oxidizing agents. Bases.  
**Hazardous Decomposition Products:** Emits hazardous fumes and smoke of unknown composition when heated to decomposition or burned.

## 11. TOXICOLOGICAL INFORMATION

**ACUTE TOXICITY:**  
**Oral LD<sub>50</sub> rat** 200 – 500 mg/kg  
**Dermal LD<sub>50</sub> rat** 400 – 2000 mg/kg  
**Inhalation LC<sub>50</sub> (4h) rat** > 0.396 mg/l  
**Skin Irritation:** Not available.  
**Eye Irritation:** Not available.  
**Skin Sensitization:** Not available.  
**Respiratory Sensitization:** Not available.  
**Reproductive cell mutagenicity:** Not available.  
**Carcinogenicity:** Not available.  
**Reproductive toxicity:** Not available.  
**Specific target organ toxicity – single exposure:** Causes damage to organs.  
**Specific target organ toxicity – repeated exposure:** Not available.  
**Aspiration hazard:** Not available.  
**Chronic Effects** (other targets e.g. developmental): Not available.  
**POTENTIAL ADVERSE EFFECTS:**  
**Inhalation:** Not available.  
**Skin contact:** Not available.  
**Eye contact:** Not available.  
**Ingestion:** Not available.

## 12. ECOLOGICAL INFORMATION

This product is considered a marine pollutant.

### ECOTOXICITY DATA: Fenamiphos Tech

<b>Fish:</b> LC <sub>50</sub> (96h)	Bluegill ( <i>Lepomis macrochirus</i> )	0.0093 mg/l
<b>Other aquatic organisms:</b> EC <sub>50</sub> (48h)	<i>Daphnia magna</i>	0.0011 mg/l
<b>Birds:</b> LD <sub>50</sub>	Bobwhite quail	0.8 mg/kg

### ENVIRONMENTAL EFFECTS:

**Persistence and degradability:**  
**Biodegradability**  
**Percent degradation (Aerobic biodegradation) Nemacur 240 CS, 20°C**  
 Result: DT50 (water, days) = 3.6 - 7.9  
**Percent degradation (Aerobic biodegradation-soil) Nemacur 240 CS, 20°C**  
 Result: DT50(days) = 0.4 - 1.4  
**Bio-accumulative Potential:**  
**Partition coefficient n-octanol / water (log Kow)**  
 Fenamiphos 3.30 (@20°C)  
**Bioconcentration factor (BCF)**  
**Nemacur 240 CS 110, Low bioaccumulation potential**  
**Mobility in soil:** Not determined.  
**Other adverse effects:** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## 13. DISPOSAL CONSIDERATIONS

**Waste:** Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be reused or re-processed. Never pour untreated waste or surplus product into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers. Comply with local legislation applying to waste disposal.  
**Container:** Do not re-use the empty container for any other purpose. Triple rinse empty containers by inverting the empty container over the spray/ mixing tank or the area where the product was used (depending on label instructions) and allow draining 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 one third of that of the container. Add the rinsing's to the contents of the spray tank before recycling or destroying the container in the prescribed manner. Comply with local legislation applying to waste disposal.

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## 14. TRANSPORT INFORMATION

**UN Number:** 3018  
**Road Transport ADR/IRD:**  
 Class: 6.1  
 Packaging group: III  
 UN Proper Shipping Name: e.g. Organophosphorus pesticides, liquid, toxic (Fenamiphos 240 g/l), MARINE POLLUTANT  
**Maritime Transport IMDG/IMO:**  
 Class: 6.1  
 Packaging group: III  
 UN Proper Shipping Name: e.g. Organophosphorus pesticides, liquid, toxic (Fenamiphos 240 g/l), MARINE POLLUTANT  
**Marine Pollutant (Y/N):** Yes.  
**Air Transport IATA/CAO:**  
 Class: 6.1  
 Packaging group: III  
 UN Proper Shipping Name: e.g. Organophosphorus pesticides, liquid, toxic (Fenamiphos 240 g/l), MARINE POLLUTANT

**Special/Environmental Precautions:** Not available.  
**Transport in bulk** (according to MARPOL 73/78, Annex II and the IBC code): Not available.

## 15. REGULATORY INFORMATION

**Safety, health and environmental regulations/legislation for the mixture:**  
 OSHA 1993 Regulations for Hazardous Chemical Substances.

**Relevant information regarding restrictions:** None.

**EU regulation:** Regulation EC1272/2008 (EU-GHS/CLP)

**Other national regulations:** None.

**Chemical Safety Assessment carried out?** No

## 16: OTHER INFORMATION

**Packaging:** Packed in 1, 5, 10, 20 and 25 litres HDPE packaging in carton box or HDPE packaging in aluminium foil + Kraft bags labelled according to South African regulations and guidelines.

**Additional H statements (formulants):**

- H225:** Highly flammable liquid and vapour.
- H300:** Fatal if swallowed.
- H304:** May be fatal if swallowed and enters airways.
- H310:** Fatal in contact with skin.
- H319:** Causes serious eye irritation.
- H330:** Fatal if inhaled.
- H331:** Toxic if inhaled.

**Disclaimer:** The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product nor where instructions or recommendations are not followed. All information is given in good faith but without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.

### END OF DOCUMENT

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For detailed information on revisions, contact the Registration holder.