

SAFETY DATA SHEET

Nemacur[™]

Date of Issue: 29 March 2011

1. SUBSTANCE/PREPARATION AND COMPANY IDENTIFICATION

Chemical name of active ingredient(s): Fenamiphos
Recommended use: Agricultural nematicide

Supplier: Amvac USA
Emergency telephone number: **0800 Poison (0800 764 766) 24 Hours**

2. HAZARDS IDENTIFICATION

Hazard Classification: Classified as hazardous according to the criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001

Required identification Details: **HSNO Class***
3.1D, 6.1B, 6.1C, 6.3A, 6.4A, 6.9A, 9.1A, 9.2B, 9.3A, 9.4A
Combustible liquid – keep away from naked flame.
Toxic – may be harmful if swallowed.
Harmful - may cause skin irritation.
Harmful – may cause eye irritation.
Toxic – presumed to/may cause target organ damage from repeated oral exposure at high doses.
Toxic to fish with long-lasting effects.
Toxic to the soil environment.
Very toxic to terrestrial vertebrates.
Very toxic to terrestrial invertebrates.

Risk & Safety Phases R23, R36, R38, R48, R50, R55, R57

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/preparation Information on hazardous ingredients

Common name	CAS No	%
Fenamiphos	22224-92-6	40%
Hydrocarbon solvent	64742-94-5	22.7%
Napthalene	91.20-3	<0.23%

4. FIRST-AID MEASURES

Description of necessary first aid measures:

In case of poisoning by any exposure route contact the National Poisons and Hazardous Chemicals Information Centre, PO Box 913, Dunedin. Phone 0800 764 766, 0800 POISON.

Effects and symptoms

No case of human poisoning due to this product is on record.

First-aid measures**Inhalation:**

Move person to fresh air and keep at rest until recovered. Apply artificial respiration if necessary.

Ingestion:

Wash out mouth with water. Do NOT induce vomiting. Give a glass of water. Transport patient to doctor or hospital quickly.

Skin contact:

If skin contact occurs remove contaminated clothing and wash affected areas thoroughly with soap and water.

Eye contact:

If product gets in eyes wash it out immediately with water.

Notes to a physician:**Workplace facilities:**

No specific facilities required. Standard emergency equipment must be available.

Hygiene Practices:

Avoid contact with skin and eyes and inhalation of concentration or spray mist. When mixing or applying, wear protective clothing, including face shield, impervious gloves and footwear. If clothing becomes contaminated with product, remove clothing immediately. DO NOT eat, drink or smoke while using. Wash hands and exposed skin thoroughly with soap and water before meals and after work. Wash protective clothing daily after work.

5. FIRE-FIGHTING MEASURES**HAZCHEM Code:****Extinguishing media :**

Water spray, foam, dry chemical, carbon dioxide, sand.

Hazardous thermal (de)composition products:

In a fire, hydrogen cyanide, carbon monoxide, phosphorus pentoxide, sulphur dioxide and nitrogen oxides may be formed.

Protection of fire-fighters:

When fighting a major fire wear an air-supplied respirator. Wear protective equipment.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions:*****Emergency Procedures:***

Ensure suitable personal protection during removal of spillages. This means wearing eye protection, chemically resistant gloves, boots and overalls.

Environmental precautions:

Washings must be prevented from entering surface water drains or waterways.

Methods for cleaning up:

Keep all bystanders away.

Wear goggles, half face-piece respirator with combined dust and vapour cartridge, full length clothing and PVC gloves.

Contaminated material must be disposed of in accordance with

all local authority requirements.

- For quantities up to 50L of product bury in a secure approved landfill site.
- For quantities greater than 50L seek advice from the manufacturer (use emergency contact number) before attempting disposal. Contain in a secure location until disposal method is established.

Decontaminate the spill area with detergent and water and rinse with the smallest volume of water practicable.

a) Triple rinsing or preferably pressure rinsing containers with water. Add the rinsings to the spray tank. DO NOT dispose of undiluted chemicals on site.

b) Burning of empty containers if circumstances, especially wind direction, permit is an alternative method. Do not burn unless in a suitable incinerator.

c) Product or unused spray mix should be disposed of according to label instructions.

Procedure for Disposal:

7. HANDLING AND STORAGE

Handling:

Avoid contact with skin and eyes and inhalation of concentrate or spray mist. When using, do not eat, drink or smoke. Wash face and hands before eating, drinking or smoking.

Storage:

Store in a cool, dry, well ventilated place and protect from sunlight.

Packaging materials:

Store in original container, tightly closed, away from foodstuffs.

Flammability:

Combustible Liquid, Class C1 – flashpoint between 61 °C and 150 °C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace Exposure Guidelines

Workplace exposure standards:

Solvent naphtha (petroleum, heavy aromatic): TWA: 100mg/ m³ (17ppm)

For the small amount of naphthalene present in the solvent TWA: 10ppm (52mg/ m³, STEL: 15ppm (79mg m³).

Skin notation.

Application in the workplace:

Exposure Standards outside:

The workplace:

Engineering measures

Use in well ventilated areas.

Hierarchy of controls:

Exposure control measures:

No Hazard indication:

Ventilation specification:

Personal Protective Equipment

Wear suitable protective clothing.

Detail specifications for equipment:

Respiratory system:

Where insufficient ventilation, use suitable respiratory protection.

Skin and body:

Hands:

Wear suitable protective gloves (e.g. Polyvinyl chloride – PVC). After contamination with product change the gloves immediately.

Eyes:

Chemical goggles/face protection.

General hygiene:

Avoid inhaling aerosols and vapours. Avoid contact with eyes and skin. Store work clothes and street clothes separately. Wash hand before breaks and at the end of work. Change contaminated protective clothing. Keep away from food, drinks and tobacco.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:

Solution

Colour:

Clear yellow

Odour:

Aromatic, chemical

pH:

5.0 to 6.0 (1% in water)

Vapour Pressure:

1.2 x 10⁻⁶hPa at 20 °C (fenamiphos): 0.3 kPa (at 38 °C) - hydrocarbon solvent

Vapour Density:

> 1.00 –hydrocarbon solvent

Boiling Point:

Not known

Freezing/melting point:

Solubility:

Emulsifies in water

Specific gravity or density:

1.05gm/cm³ @ 20 °C

Information for flammable material including:

Combustible Liquid, Class C1 – flashpoint between 61 °C and 150 °C.

- Lower and upper flammability limits
- Flashpoint (state test Method

LEL: 0.6; UEL: 7.0 Vol % in air (hydrocarbon solvent)

70 °C

Auto – ignition Temperature:

> 400 °C (hydrocarbon solvent)

Octanol/water partition coefficient:

Fenamiphos: Log P_{ow} = 3.30 at 20 °C

Explosion properties:

Oxidation properties:

10. STABILITY AND REACTIVITY

Stability:

Stable under standard conditions.

Conditions to avoid:

Excessive heat

Materials to avoid:

Oxidising agents, bases

Hazardous decomposition Products:	In a fire, phosphorus pentoxide, sulphur dioxide, carbon monoxide, and nitrogen oxides may be formed.
Hazardous polymerization:	(state any substance likely to polymerize and cause dangerous conditions)
Specific Data:	(state any other information which might describe a likely hazard from the product including mixtures)
Hazardous reactions :	Chloride compounds and nitrogen oxides.

11. TOXICOLOGICAL INFORMATION

Acute toxicity – Oral :	LD ₅₀ : rat 10mg/kg (similar formulation)
Acute toxicity - Dermal :	LD ₅₀ : rat 161 - 208mg/kg (similar formulation)
Acute toxicity – Inhalation:	LC ₅₀ : rat 132- 198mg/km ³ (4h) (similar formulation)
Skin irritation :	Slightly irritating (rabbit) (derived from the ingredients)
Mucous membranes:	Slightly irritating (derived from the ingredients)
Sensitization :	Fenamiphos is not a skin sensitizer.
Common name :	
Chronic toxicity :	
Carcinogenicity:	
Mutagenicity:	
Reproduction toxicity:	
Other information :	

12. ECOLOGICAL INFORMATION

For Fenamiphos:

Ecotoxicity

Fish	LC ₅₀ : 0.0093mg/l (96h); bluegill sunfish (<i>Lepomis macrochirus</i>) LC ₅₀ : 0.0721mg/l (96h); trout (<i>Oncorhynchus mykiss</i>)
Daphnia magna	EC ₅₀ : 0.0019mg/l (48h); Water flea (<i>Daphnia magna</i>)
Algae	IC ₅₀ : >10mg/l (72h); Green algae (<i>Scenedesmus subspicatus</i>)
Bacteria	EC ₅₀ : 2030mg/l (96h); activated sludge
Birds	LD ₅₀ : 0.7 to 1.6mg/kg; bobwhite quail LD ₅₀ : 0.9 to 1.2mg/kg; mallard ducks

Common name

Mobility Soil

Water

Persistence/degradability Soil

Water

Bioaccumulative potential :

Ecotoxicity

Fish

Daphnia magna

Algae (scenedesmus subspicatus)

Birds

Bees

13. DISPOSAL CONSIDERATIONS

Product Disposal: Dispose of this product only by using according to the label, or at an approved landfill or other approved facility.

Container Disposal: Triple rinse the empty container adding rinseate to the spray tank. Recycle if possible. If allowed under local authority, burn if circumstances, especially wind direction permit, otherwise crush and bury in an approved local authority facility. Do not use container for any other purpose.

14. TRANSPORT INFORMATION

International transport regulations

International transport regulations:

UN number: **UN3018**

Land - Road/Railway Organophosphorus Pesticide, Liquid, Toxic (fenamiphos). Class 6, Packing Group II, Hazchem 2X.

Sea (MDG code): Organophosphorus Pesticide, Liquid, Toxic (fenamiphos). Class 6, Packing Group II, Hazchem 2X.
Marine Pollutant.

Air (ICAO/IATA) UN 3018 Organophosphorus Pesticide, Liquid, Toxic (fenamiphos). Class 6, Packing Group II, Hazchem 2X.

15. REGULATORY INFORMATION

ACVM Registered Number: P2690
HSNO Approval Code: HSR000956
Approved Handler required: Approved Handler required at time of use
ACVM Controls: See www.nzfsa.govt.nz/acvm for registration conditions
HSNO Controls (inc. Tracking): See www.ermanz.govt.nz for controls

16. OTHER INFORMATION

Additional information:

(include any other information abo 3.1D Combustible liquid – keep away from naked flame.

6.1B Toxic – may be harmful if swallowed.

6.3A Harmful - may cause skin irritation.

6.4A Harmful – may cause eye irritation.

6.9A Toxic – presumed to/may cause target organ damage from repeated oral exposure at high doses.

9.1A Toxic to fish with long-lasting effects.

9.2B Toxic to the soil environment.

9.3A Very toxic to terrestrial vertebrates.

9.4A Very toxic to terrestrial invertebrates.

R23 Toxic by inhalation.

R36 Irritating to eyes.

R38 Irritating to skin.

R48 Danger of serious damage to health by prolonged exposure.

R50 Very toxic to aquatic organisms.

R55 Toxic to fauna.

R57 Toxic to bees.

Disclaimer

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The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe products in terms of their safety requirements. The above details do not imply any guarantee concerning composition, properties or performance of the product.