

# SAFETY DATA SHEET

An	American	Vanguard	Company

Section 1	- Identification
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Product identifier	Nemacur® 400 Nematicide	e Liquid
Other means of identification		
Product registration number	33295	
SDS No.	587	
Recommended use of the chemi	ical and restrictions on use	
Recommended use	Organophosphate nematicio	de/insecticide.
Restrictions on use	No other uses are advised. Keep out of the Reach of Ch	nildren!
Details of manufacturer or impo	rter	
Manufacturer		
Company name	AgNova Technologies Pty L	td
Address	Unit 4, 482 Kingsford Smith	Drive
	Hamilton, Queensland 4007 Australia	
Telephone	AgNova Technologies Pty Ltd	03 9899 8100 (office hours)
Website	agnova.com.au	
E-mail	info@agnova.com.au	
Emergency phone number	IXOM ERS Poisons Information Centre	1800 033 111 (24 hours) 13 11 26

## Section 2 - Hazard(s) identification

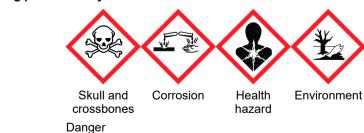
#### Classification of the hazardous chemical

Physical hazards	Flammable liquids	Category 4
Health hazards	Acute toxicity, oral	Category 2
	Acute toxicity, dermal	Category 2
	Acute toxicity, inhalation	Category 2
	Serious eye damage/eye irritation	Category 1
	Carcinogenicity	Category 2
	Specific target organ toxicity following single exposure	Category 3 narcotic effects
	Aspiration hazard	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 1

#### Label elements, including precautionary statements

Hazard symbol(s)

Signal word



Hazard statement(s)	Combustible liquid. Fatal if swallowed. Fatal in contact with skin. Fatal if inhaled. Causes serious eye damage. Suspected of causing cancer. May cause drowsiness or dizziness. May be fatal if swallowed and enters airways. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.
Precautionary statement(s)	
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wash thoroughly after handling.
Response	IF SWALLOWED: Immediately call a POISON CENTRE/doctor. Rinse mouth. Do NOT induce vomiting. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTRE/doctor. IF ON SKIN: Wash with plenty of water. Immediately call a POISON CENTRE/doctor. Take off immediately all contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE/doctor. Specific treatment is urgent (see this label). In case of fire: Use appropriate media to extinguish. Collect spillage.
Storage	Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Supplemental information	None.
Other hazards which do not result in classification	None known.

## Section 3 - Composition and information on ingredients

#### Mixture

Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients
Fenamiphos	22224-92-6	400 g/L
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	20 - 30 %
Propylene glycol	57-55-6	10 - 20 %
Surfactant	Proprietary	10 - 30 %
Additional components		
Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients
Other Ingredients - non hazardous	N/A	10 - 20 %
Constituents		
Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients
Naphthalene	91-20-3	< 2.5 %
1,2,4-Trimethyl benzene	95-63-6	< 1.5 %
If Chemical Name/CAS No is "proprietary" and/or Weight-% is li	sted as a range, the specific chemical identity and	d/or percentage of

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret. Composition comments

Occupational Exposure Limits for constituents are listed in Section 8.

## Section 4 - First aid measures

#### Description of necessary first aid measures

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Inhalation	Move 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. Call a physician or poison control centre immediately.
Skin contact	Remove contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Call a physician or poison control centre immediately.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control centre immediately.
Ingestion	Call a physician or poison centre immediately. Rinse mouth thoroughly. Do not induce vomiting without advice from poison control centre. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Personal protection for first-aid responders	If exposed or concerned, call The Poisons Information Centre. The number is 13 11 26 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call. First aider: Pay attention to self-protection. Keep victim under observation.
Symptoms caused by exposure	Aspiration may cause pulmonary oedema and pneumonitis.
	Causes serious eye damage. Acute cholinesterase depression may be evidenced by headache, nausea, vomiting, diarrhea, abdominal cramps, excessive sweating, salivation and tearing, constricted pupils, blurred vision, tightness in chest, weakness, muscle twitching and confusion; in extreme cases unconsciousness, convulsions, severe respiratory depression and death may occur. Repeated exposures to small doses of organophosphates may lower the cholinesterase to levels where the above symptoms of acute overexposure are observed.
Medical attention and special treatment	Treat symptomatically. 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 contaminated clothing and do not reuse without thorough cleaning with detergent and hot water. Do not wait for laboratory confirmation to treat patients with strong clinical evidence of poisoning. Contact your local or national poison control centre for more information.
	Establish airway and oxygenation. IV Atropine sulphate is the antidote of choice against parasympathetic nervous stimulation. If there are signs of parasympathetic stimulation, Atropine sulphate should be injected at 10 minute intervals in doses of 1 to 2 milligrams until complete atropinisation has occurred. Pralidoxime chloride (2-PAM chloride) may also be used as an effective antidote in addition to and while maintaining full atropinisation. 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 to 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 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 endotracheal tube.
Section 5 - Firefighting me	asures

## Section 5 - Firefighting measures

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Extinguishing media	
Suitable extinguishing equipment	Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO2). Water spray. Water fog.
Unsuitable extinguishing equipment	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed. Vapours may travel considerable distance to a source of ignition and flash back.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Hazchem code	2X
General fire hazards	Combustible liquid.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.

### Section 6 - Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

r croonar precautions, protective	equipment and emergency procedures
For non-emergency personnel	Do not breathe vapours or spray mist. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
For emergency responders	Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. Use personal protection recommended in Section 8 of the SDS.
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Use water spray to reduce vapours or divert vapour cloud drift. Prevent entry into waterways, sewer, basements or confined areas.
	Large Spills: Stop the flow of material, if this is without risk. Dyke the spilled material, where this is possible. Siphon the spilled liquid into a recovery drum for reuse or disposal, depending on the circumstances. Clean the area as described for a small spill.
	Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Put material in suitable, covered, labeled containers. Decontaminate the area and equipment with dilute alkali or ammonia (less than 5%) and detergent.
	Never return spills to original containers for reuse.
Section 7 - Handling and s	torage
Precautions for safe handling	Provide adequate ventilation. Should be handled in closed systems, if possible. Keep away from open flames, hot surfaces and sources of ignition. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Do not taste or swallow. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Avoid

release to the environment. Wash hands thoroughly after handling. Wash contaminated clothing

Conditions for safe storage, including any incompatibilities

#### cidding any incompatibilities

before reuse.

## Section 8 - Exposure controls and personal protection

Control parameters Follow standard monitoring procedures.

#### **Occupational exposure limits**

Australia. National Workplace	<b>OELs (Workplace Exposure Standa</b>	ards for Airborne Contamir	nants, Appendix A)
Componente	Type	Valua	Form

Store locked up. Store in original tightly closed container.

Components	Туре	Value	Form
Fenamiphos (CAS 22224-92-6)	TWA	0.1 mg/m3	
Propylene glycol (CAS 57-55-6)	TWA	474 mg/m3	Total vapour and particulates.
		10 mg/m3	Particulate.
		150 ppm	Total vapour and particulates.
Constituents	Туре	Value	
1,2,4-Trimethyl benzene (CAS 95-63-6)	TWA	123 mg/m3	
		25 ppm	
Naphthalene (CAS 91-20-3)	STEL	79 mg/m3	
		15 ppm	
	TWA	52 mg/m3	
		10 ppm	
US. ACGIH Threshold Limit Values	; (TLV)		
Components	Туре	Value	Form
Fenamiphos (CAS 22224-92-6)	TWA	0.05 mg/m3	Inhalable fraction and vapour.

Constituents		Туре		Va	alue	
1,2,4-Trimethyl benzene (CAS 95-63-6)		TWA		10	) ppm	
Naphthalene (CAS 91-20-	3)	TWA		10	) ppm	
UK. OELs. Workplace Ex Components	cposure Limits	(WELs) (I Type	EH40/2005 (Fourtl		)), Table 1 alue	Form
Propylene glycol (CAS 57-55-6)		TWA		47	74 mg/m3	Total vapour and particulates.
				1(	) mg/m3	Particulate.
				15	50 ppm	Total vapour and particulates.
Constituents		Туре		Va	alue	
1,2,4-Trimethyl benzene (CAS 95-63-6)		TWA		12	25 mg/m3	
· · · · ·				25	5 ppm	
Germany. DFG MAK List in the Work Area (DFG),		s). Comm	nission for the Inv	estigation of I	lealth Hazard	ls of Chemical Compour
Components	·	Туре		Va	alue	Form
Nemacur 400 (CAS 64742-94-5)		TWA		5	mg/m3	Respirable aerosol fraction
				35	50 mg/m3	Vapour.
				50	) ppm	Vapour.
Constituents		Туре		Va	alue	
1,2,4-Trimethyl benzene (CAS 95-63-6)		TWA		10	)0 mg/m3	
				20	) ppm	
ogical limit values						
Germany. TRGS 903, BA Components	T List (Biologic Value	cal Limit V	/alues) Determinant	Specimen	Sampling	Time
Fenamiphos (CAS 22224-92-6)	70 %		Acetylcholinest erase	Reduction from individual baseline activity in red blood cells	*	
Constituents	Value		Determinant	Specimen	Sampling	Time
1,2,4-Trimethyl benzene (CAS 95-63-6)	400 mg/g		Dimethylbenzo esäuren (Summe aller Isomeren nach Hydrolyse)	Creatinine in urine	*	
* - For sampling details, p	lease see the sc	ource docu	ument.			
ACGIH Biological Expos Components	ure Indices (BE Value	EI)	Determinant	Specimen	Sampling	Time
Fenamiphos (CAS 22224-92-6)	70 %		Acetylcholinest erase activity	Reduction	*	

Fenamiphos (CAS 22224-92-6)	70 %	Acetylcholinest erase activity	Reduction from individual baseline activity in red blood cells	*	
	60 %	Butyrylcholines terase activity	Serum or Plasma	*	

\* - For sampling details, please see the source document.

Exposure guidelines			
US ACGIH Threshold Limit	Values: Skin designation		
Fenamiphos (CAS 22224-92-6) Naphthalene (CAS 91-20-3)		Danger of cutaneous absorption Danger of cutaneous absorption	
Control banding	Not available.		
Engineering controls	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.		
Individual protection measures	, such as personal protective	equipment (PPE)	
Eye/face protection	Wear safety glasses with side	shields (or goggles). Chemical goggles are recommended.	
Skin protection			
Hand protection	0.40 mm). Wash when contar	sistant gloves. Nitrile gloves are recommended (minimum thickness ninated. Dispose of gloves when contaminated inside, when ation outside cannot be removed. Always wash hands before eating, toilet.	
Other	required. If there is a possibili	ants or coveralls, socks and chemical resistant closed toe shoes are ty of splashing or spillage, a chemical resistant apron or chemical be worn. The label should be consulted for more detailed instructions	
Respiratory protection	limits (where applicable) or to	maintain airborne concentrations below recommended exposure an acceptable level (in countries where exposure limits have not ed respirator must be worn. The label should be consulted for more rds to respiratatory protection.	
Thermal hazards	Wear appropriate thermal pro	tective clothing, when necessary.	
Hygiene measures	good personal hygiene meas	ance requirements. Keep away from food and drink. Always observe ures, such as washing after handling the material and before eating, utinely wash work clothing and protective equipment to remove	

# Section 9 - Physical and chemical properties

Physical state	Liquid.
Form	Clear solution.
Colour	Yellow
Odour	Aromatic solvent.
Odour threshold	Not available.
рН	Not available.
Melting point/freezing point	Not available.
Boiling point and boiling range	Not available.
Flash point	65.6 °C (150 °F) (Based on similar formulation)
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower explosive limits	
Explosion limit - lower (%)	0.8 % (based on aromatic solvent) estimated
Explosion limit - upper (%)	12.6 % (based on aromatic solvent) estimated
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	1.05
Relative density temperature	20 °C (68 °F)
Solubility	
Solubility (water)	Emulsifies
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	371 °C (700 °F) (based on aromatic solvent) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Particle characteristics	Not available.

Material name: Nemacur® 400 Nematicide Liquid 1893

**Data relevant with regard to** No relevant additional information available. **physical hazard classes** 

#### Other physical and chemical parameters

Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

## Section 10 - Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidising agents.
Hazardous decomposition products	Emits hazardous fumes and smoke of unknown composition when heated to decomposition or burned.

### Section 11 - Toxicological information

## Information on possible routes of exposure

Inhalation	Fatal if inhaled.		
Skin contact	Fatal in contact with skin.		
Eye contact	Causes serious eye damage.		
Ingestion	Fatal if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.		
Early onset symptoms related to exposure	Aspiration may cause pulmonary oedema and pneumonitis. May cause drowsiness or dizziness. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Acute cholinesterase depression may be evidenced by headache, nausea, vomiting, diarrhea, abdominal cramps, excessive sweating, salivation and tearing, constricted pupils, blurred vision, tightness in chest, weakness, muscle twitching and confusion; in extreme cases, unconsciousness, convulsions, severe respiratory depression and death may occur.		
Delayed health effects from exposure	Not available.		
Acute toxicity	Fatal if swallowed. Fatal in contact with skin. Fatal if inhaled.		
Components	Species		Test Results
Fenamiphos (CAS 22224-92-6)			
Acute			
Dermal			
LD50	female rat		92 mg/kg
	male rat		72 mg/kg
	Rabbit		178 mg/kg
Inhalation			
Dust and mist.			
LC50	female rat		0.079 mg/l, 4 h
	male rat		0.065 mg/l, 4 h
Oral			
LD50	female rat		6.1 mg/kg
	male rat		6 mg/kg
Skin corrosion/irritation	Prolonged skin contact may ca	ause temporary irritation	n.
Irritation Corrosion - Sk Fenamiphos	in	Result: Not an irritant Species: Rabbit Organ: skin	
Serious eye damage/irritation	Causes serious eye damage.		

Irritation Corrosion - Ey Fenamiphos		Result: Irritant Species: Rabbit Organ: eye	
Respiratory or skin sensitisatio Respiratory sensitisation	Not a respiratory sensitise		
Skin sensitisation			tion
Skin Sensitisation			
Fenamiphos		Result: Not a sensiti Species: Guinea pig Organ: skin	
Serm cell mutagenicity	Not classified.		
arcinogenicity	Suspected of causing cano	cer.	
ACGIH Carcinogens			
1,2,4-Trimethyl benzene (CAS 95-63-6) Fenamiphos (CAS 22224-92-6) Naphthalene (CAS 91-20-3)		A4 Not classifiable a	as a human carcinogen. as a human carcinogen. al carcinogen with unknown relevance to
IARC Monographs. Overall	Evaluation of Carcinogenic		
Naphthalene (CAS 91-20	-	2B Possibly carcino	genic to humans.
eproductive toxicity	This product is not expected	ed to cause reproductive of	or developmental effects.
pecific target organ toxicity - ingle exposure	May cause drowsiness or o	lizziness. Potential neuro	otoxicity as an organophosphate.
Specific target organ toxicity - epeated exposure			of organophosphates may lower the te overexposure are observed.
	May be fatal if swallowed and enters airways.		
Aspiration hazard	May be fatal if swallowed a	nd enters airways.	
Chronic effects	Prolonged inhalation may l	-	
Aspiration hazard Chronic effects Section 12 - Ecological in Ecotoxicity	Prolonged inhalation may b	be harmful.	is product is highly toxic to birds.
Chronic effects Section 12 - Ecological in Ecotoxicity	Prolonged inhalation may b	be harmful.	is product is highly toxic to birds. <b>Test Results</b>
Chronic effects Section 12 - Ecological in Ecotoxicity Components	Prolonged inhalation may b formation Very toxic to aquatic life wi	be harmful.	
Chronic effects Section 12 - Ecological in Ecotoxicity Components	Prolonged inhalation may b formation Very toxic to aquatic life wi	be harmful.	
Chronic effects Section 12 - Ecological in Cotoxicity Components Fenamiphos (CAS 22224-92-6)	Prolonged inhalation may b formation Very toxic to aquatic life wi	be harmful.	
correction 12 - Ecological in Section 12 - Ecological in Sectoxicity Components Senamiphos (CAS 22224-92-6) Aquatic	Prolonged inhalation may b formation Very toxic to aquatic life wi Species	be harmful.	
Components Components	Prolonged inhalation may b formation Very toxic to aquatic life wi Species	be harmful. th long lasting effects. Th	Test Results
Chronic effects Section 12 - Ecological in Ecotoxicity Components Fenamiphos (CAS 22224-92-6) Aquatic Acute Algae	Prolonged inhalation may formation Very toxic to aquatic life wi Species EC50 Scenedesm EC50 Daphnia ma	be harmful. th long lasting effects. Th	Test Results 3.8 mg/l, 72 h
Chronic effects Section 12 - Ecological in Ecotoxicity Components Fenamiphos (CAS 22224-92-6) Aquatic Acute Algae Crustacea	Prolonged inhalation may formation Very toxic to aquatic life wi Species EC50 Scenedesm EC50 Daphnia ma LC50 Bluegill (Le	be harmful. th long lasting effects. Th nus suspicatus agna pomis macrochirus)	<b>Test Results</b> 3.8 mg/l, 72 h 0.0011 mg/l, 48 h 0.0093 mg/l, 96 h
Chronic effects Section 12 - Ecological in Ecotoxicity Components Fenamiphos (CAS 22224-92-6) Aquatic Acute Algae Crustacea Fish Persistence and degradability Biodegradability Percent Degradation (A	Prolonged inhalation may formation Very toxic to aquatic life wi Species EC50 Scenedesm EC50 Daphnia ma LC50 Bluegill (Le Moderately persistent in th	be harmful. th long lasting effects. Th nus suspicatus agna pomis macrochirus) e soil environment, with a	Test Results 3.8 mg/l, 72 h 0.0011 mg/l, 48 h 0.0093 mg/l, 96 h a half-life of approximately 50 days in most
Chronic effects Section 12 - Ecological in Cotoxicity Components Fenamiphos (CAS 22224-92-6) Aquatic Acute Algae Crustacea Fish Persistence and degradability Biodegradability Percent Degradation (A Fenamiphos	Prolonged inhalation may formation Very toxic to aquatic life wi Species EC50 Scenedesm EC50 Daphnia ma LC50 Bluegill (Le Moderately persistent in th soils.	be harmful. th long lasting effects. Th nus suspicatus agna pomis macrochirus) e soil environment, with a Result: DT50 (water )	<b>Test Results</b> 3.8 mg/l, 72 h 0.0011 mg/l, 48 h 0.0093 mg/l, 96 h
Chronic effects Section 12 - Ecological in Components Components Cenamiphos (CAS 22224-92-6) Aquatic Acute Algae Crustacea Fish Persistence and degradability Biodegradability Percent Degradation (A Fenamiphos Percent Degradation (A Fenamiphos	Prolonged inhalation may formation Very toxic to aquatic life wi Species EC50 Scenedesm EC50 Daphnia ma LC50 Bluegill (Le Moderately persistent in th soils. Aerobic Biodegradation)	be harmful. th long lasting effects. Th nus suspicatus agna pomis macrochirus) e soil environment, with a Result: DT50 (water ) Result: DT50 (water	Test Results         3.8 mg/l, 72 h         0.0011 mg/l, 48 h         0.0093 mg/l, 96 h         a half-life of approximately 50 days in most         ) = 3.6 days at 20 °C
Chronic effects Section 12 - Ecological in Ecotoxicity Components Fenamiphos (CAS 22224-92-6) Aquatic Acute Algae Crustacea Fish Persistence and degradability Biodegradability Percent Degradation (A Fenamiphos Percent Degradation (A	Prolonged inhalation may formation Very toxic to aquatic life wi Species EC50 Scenedesm EC50 Daphnia ma LC50 Bluegill (Le Moderately persistent in th soils. Aerobic Biodegradation) Aerobic Biodegradation-Soil Bioaccumulation is unlikely	be harmful. th long lasting effects. Th nus suspicatus agna pomis macrochirus) e soil environment, with a Result: DT50 (water ) Result: DT50 (water	Test Results         3.8 mg/l, 72 h         0.0011 mg/l, 48 h         0.0093 mg/l, 96 h         a half-life of approximately 50 days in most         ) = 3.6 days at 20 °C
Chronic effects Section 12 - Ecological in Components Components Cenamiphos (CAS 22224-92-6) Aquatic Acute Algae Crustacea Fish Persistence and degradability Biodegradability Percent Degradation (A Fenamiphos Percent Degradation (A Fenamiphos Bioaccumulative potential Partition coefficient n-octanol / water (log Kow) Fenamiphos Bioconcentration factor (BCF)	Prolonged inhalation may formation Very toxic to aquatic life wi Species EC50 Scenedesm EC50 Daphnia ma LC50 Bluegill (Le Moderately persistent in th soils. Aerobic Biodegradation) Aerobic Biodegradation-Soil Bioaccumulation is unlikely	be harmful. th long lasting effects. The nus suspicatus agna pomis macrochirus) e soil environment, with a Result: DT50 (water ) Result: DT50 (water ) 3.3	Test Results         3.8 mg/l, 72 h         0.0011 mg/l, 48 h         0.0093 mg/l, 96 h         a half-life of approximately 50 days in most         ) = 3.6 days at 20 °C         ) = 0.4 - 1.4 days at 20 °C
Chronic effects Section 12 - Ecological in cotoxicity Components Fenamiphos (CAS 22224-92-6) Aquatic Acute Algae Crustacea Fish Persistence and degradability Biodegradability Percent Degradation (A Fenamiphos Percent Degradation (A Fenamiphos Bioaccumulative potential Partition coefficient n-octanol / water (log Kow) Fenamiphos Bioconcentration factor (BCF) Fenamiphos	Prolonged inhalation may formation Very toxic to aquatic life wi Species EC50 Scenedesm EC50 Daphnia ma LC50 Bluegill (Le Moderately persistent in th soils. Aerobic Biodegradation) Aerobic Biodegradation-Soil Bioaccumulation is unlikely	th long lasting effects. The nus suspicatus agna pomis macrochirus) e soil environment, with a Result: DT50 (water ) Result: DT50 (water ) 3.3 Result: 110 L/kg w	Test Results         3.8 mg/l, 72 h         0.0011 mg/l, 48 h         0.0093 mg/l, 96 h         a half-life of approximately 50 days in most         ) = 3.6 days at 20 °C         ) = 0.4 - 1.4 days at 20 °C
Chronic effects Section 12 - Ecological in Components Components Cenamiphos (CAS 22224-92-6) Aquatic Acute Algae Crustacea Fish Persistence and degradability Biodegradability Percent Degradation (A Fenamiphos Percent Degradation (A Fenamiphos Bioaccumulative potential Partition coefficient n-octanol / water (log Kow) Fenamiphos Bioconcentration factor (BCF)	Prolonged inhalation may formation Very toxic to aquatic life wi Species EC50 Scenedesm EC50 Daphnia ma LC50 Bluegill (Le Moderately persistent in th soils. Aerobic Biodegradation) Aerobic Biodegradation-Soil Bioaccumulation is unlikely No data available for this p	be harmful. th long lasting effects. The hus suspicatus agna pomis macrochirus) e soil environment, with a Result: DT50 (water ) Result: DT50 (water ) 3.3 Result: 110 L/kg w roduct.	Test Results         3.8 mg/l, 72 h         0.0011 mg/l, 48 h         0.0093 mg/l, 96 h         a half-life of approximately 50 days in most         ) = 3.6 days at 20 °C         ) = 0.4 - 1.4 days at 20 °C

# Section 13 - Disposal considerations

Disposal methods	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Residual waste	Dispose of in accordance with all applicable regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). For help with the collection of unwanted rural chemicals, contact ChemClear 1 800 008 182 http://www.chemclear.com.au/. For help with disposal of empty drums contact DrumMuster http://www.drummuster.com.au/. These sites will give contact details for your area.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## Section 14 - Transport information

ADG	
UN number	3018
UN proper shipping name	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC (Fenamiphos)
Transport hazard class(es)	
Class	6.1
Subsidiary risk	-
Packing group	П
Environmental hazards	No
Hazchem code	2X
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
RID	
UN number	3018
UN proper shipping name	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC (Fenamiphos)
Transport hazard class(es)	
Class	6.1
Subsidiary risk	-
Label(s)	6.1
Packing group	II. Contraction of the second s
Environmental hazards	Yes
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
ΙΑΤΑ	
UN number	3018
UN proper shipping name	Organophosphorus pesticide, liquid, toxic (Fenamiphos)
Transport hazard class(es)	
Class	6.1
Subsidiary risk	-
Packing group	ll
Environmental hazards	No
ERG Code	6L
	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo	Allowed with restrictions.
aircraft	
Cargo aircraft only	Allowed with restrictions.
IMDG	
UN number	3018
UN proper shipping name	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC (Fenamiphos), MARINE POLLUTANT
Transport hazard class(es)	
Class	6.1
Subsidiary risk	-
Packing group	Ш
Environmental hazards	
Marine pollutant	Yes
EmS	F-A, S-A
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Not established. Annex II of MARPOL 73/78 and the IBC Code



Marine pollutant



General information

National regulations

IMDG Regulated Marine Pollutant.

## Section 15 - Regulatory information

#### Safety, health and environmental regulations

This Safety Data Sheet was prepared in accordance with Australia Model Code of Practice for the preparation of Safety Data Sheets for Hazardous Chemicals.

#### Australia Medicines & Poisons Appendix B Propylene glycol (CAS 57-55-6) Australia Medicines & Poisons Appendix E 1,2,4-Trimethyl benzene (CAS 95-63-6) Naphthalene (CAS 91-20-3) Australia Medicines & Poisons Appendix F

Naphthalene (CAS 91-20-3) Australia Medicines & Poisons Appendix G Naphthalene (CAS 91-20-3) Australia Medicines & Poisons Schedule 10 Naphthalene (CAS 91-20-3) Australia Medicines & Poisons Schedule 4 Fenamiphos (CAS 22224-92-6) Australia Medicines & Poisons Schedule 5 1,2,4-Trimethyl benzene (CAS 95-63-6) Solvent naphtha (petroleum), heavy aromatic (CAS 64742-94-5) Australia Medicines & Poisons Schedule 6 Fenamiphos (CAS 22224-92-6) Naphthalene (CAS 91-20-3)

Australia Medicines & Poisc	no Sobodulo 7		
Fenamiphos (CAS 22224 High Volume Industrial Che			
Propylene glycol (CAS 57	. ,	10000 - 99999 TONNES See the regula information.	ation for additional
Solvent naphtha (petroleu (CAS 64742-94-5)	um), heavy aromatic	10000 - 99999 TONNES See the regula information.	ation for additional
Importation of Ozone Deple	ting Substances (Custo	ms(Prohibited imports) Regulations 1956, Sc	hedule 10, as amended)
Not listed. National Pollutant Inventory	(NPI) substance report	ing list	
Not listed. Prohibited Carcinogenic Su	bstances		
Not regulated. Prohibited Substances (Nat NOHSC:1005 (1994) as ame		for the control of Workplace Hazardous Sub	stances, Schedule 2
Not listed. Restricted Carcinogenic Su	bstances		
Not regulated. Restricted Importation of Or	rganochlorine Chemical	ls (Customs(Prohibited Imports) Regulations	1956, Schedule 9)
Not listed.			
International regulations			
Stockholm Convention			
Not applicable. Rotterdam Convention			
Not applicable. Kyoto Protocol			
Not applicable. Montreal Protocol			
Not applicable. Basel Convention			
Naphthalene (CAS 91-20	-3)		
International Inventories	-,		
Country(s) or region	Inventory name		On inventory (yes/no)*
Australia	•	Industrial Chemicals (AICIS)	No
Europe	European Inventory of I Substances (EINECS)	Existing Commercial Chemical	No
Europe	European List of Notifie	ed Chemical Substances (ELINCS)	No
United States & Puerto Rico		rol Act (TSCA) Inventory	No

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## Section 16 - Any other relevant information

Issue date	27-July-2023
Revision date	27-July-2023

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