



Printing date 02.02.2017

Safety Data Sheet

according to WHS Regulations

Revision: 02.02.2017

1 Identification

Product Name: TITAN FENAMIPHOS 400 NEMATOCIDE AND INSECTICIDE

Other Means of Identification: Mixture

Recommended Use of the Chemical and Restriction on Use: Agricultural insecticide

Details of Manufacturer or Importer:

Titan Ag Pty Ltd
15/16 Princess Street
Newport NSW 2106

Phone Number: 02 9999 6655

Emergency telephone number: 02 9999 6655

2 Hazard(s) Identification

Hazardous Nature:

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition).



skull and crossbones

Acute Toxicity (Oral) 2 H300 Fatal if swallowed.

Acute Toxicity (Dermal) 3 H311 Toxic in contact with skin.



health hazard

Carcinogenicity 2 H351 Suspected of causing cancer.

Aspiration Hazard 1 H304 May be fatal if swallowed and enters airways.



environment

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

Flammable Liquids 4 H227 Combustible liquid.

Signal Word Danger

Hazard Statements

H227 Combustible liquid.

H300 Fatal if swallowed.

H311 Toxic in contact with skin.

H351 Suspected of causing cancer.

H304 May be fatal if swallowed and enters airways.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements

P210 Keep away from flames and hot surfaces. No smoking.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P273 Avoid release to the environment.

P264 Wash hands thoroughly after handling.

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- P270 Do not eat, drink or smoke when using this product.
 P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
 P321 Specific treatment (see on this label).
 P312 Call a POISON CENTER/doctor if you feel unwell.
 P308+P313 IF exposed or concerned: Get medical advice/attention.
 P330 Rinse mouth.
 P331 Do NOT induce vomiting.
 P370+P378 In case of fire: Use to extinguish: CO2, powder or water spray.
 P302+P352 IF ON SKIN: Wash with plenty of water.
 P391 Collect spillage.
 P361+P364 Take off immediately all contaminated clothing and wash it before reuse.
 P405 Store locked up.
 P403+P235 Store in a well-ventilated place. Keep cool.
 P501 Dispose of contents/container in accordance with local/regional/national regulations.

3 Composition and Information on Ingredients

Chemical Characterization: Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Hazardous Components:

22224-92-6	fenamiphos (ISO) 	40%
64742-94-5	Solvent naphtha (petroleum), heavy arom. 	22.7%
91-20-3	naphthalene 	<2.3%

4 First Aid Measures

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if breathing problems develop.

Skin Contact:

In case of skin contact, immediately remove contaminated clothing and wash affected areas with water and soap. Seek medical attention if symptoms occur.

Eye Contact:

In case of eye contact, hold eyelids open and rinse with water for at least 15 minutes. Seek medical attention if symptoms occur.

Ingestion:

If swallowed, do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Do not give anything by mouth to an unconscious person. Seek immediate medical attention.

Symptoms Caused by Exposure:

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Inhalation: May cause symptoms similar to ingestion.

Skin Contact: Toxic in contact with skin. May cause symptoms similar to ingestion.

Eye Contact: May cause eye irritation, stinging, reddening and watering.

Ingestion: Fatal if swallowed. May cause inco-ordination, headache, dizziness, nausea, abdominal cramps, excessive sweating and salivation, blurred vision, unconsciousness, incontinence, convulsions, fatigue, slowed heart rate and seizures. May be fatal if swallowed and enters airways.

5 Fire Fighting Measures

Suitable Extinguishing Media: Water fog or fine water spray.**Specific Hazards Arising from the Chemical:**

Hazardous combustion products include oxides of carbon, nitrogen, nitrogen oxides, other nitrogen compounds, hydrogen cyanide, oxides of sulphur, other sulphur compounds, oxides of phosphorous, other phosphorous compounds, smoke and water.

Combustible Liquid Class 1.

Closed containers may explode when exposed to extreme heat. Containers close to fire should be removed if safe to do so. Use water spray to cool fire exposed containers.

Special Protective Equipment and Precautions for Fire Fighters:

When fighting a major fire wear self-contained breathing apparatus and protective equipment.

6 Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures:

Wear approved respiratory protection, chemical resistant gloves, protective clothing and safety boots. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation. Extinguish all sources of ignition. Avoid sparks and open flames. No smoking.

Environmental Precautions:

In the event of a major spill, prevent spillage from entering drains or water courses.

Methods and Materials for Containment and Cleaning Up:

Stop leak if safe to do so and absorb spill with sand, earth, vermiculite or some other absorbent material. If absorbent material is not available or spill is too large, create a dike to stop spill from spreading. Collect the spilled material and place into a suitable container for disposal.

7 Handling and Storage

Precautions for Safe Handling:

Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours. Use only outdoors or in a well-ventilated area. Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

Conditions for Safe Storage:

Store in a cool, dry and well ventilated area. Keep in original container, tightly closed when not in use. Protect from heat, sparks, open flames, hot surfaces and direct sunlight. Keep away from strong oxidising agents, strong acids and strong bases.

8 Exposure controls and personal protection

Exposure Standards:**22224-92-6 fenamiphos (ISO)**

NES	TWA: 0.1 mg/m ³
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91-20-3 naphthalene

NES	STEL: 79 mg/m ³ , 15 ppm TWA: 52 mg/m ³ , 10 ppm
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Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapour below occupational exposure standards.

Respiratory Protection:

Use an approved vapour respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapour, inadequate ventilation, development of respiratory tract irritation) and engineering controls are not feasible. See Australian Standards AS/NZS 1715 and 1716 for more information.

Skin Protection:

PVC or rubber gloves. See Australian/New Zealand Standard AS/NZS 2161 for more information. When selecting gloves for use against certain chemicals, the degradation resistance, permeation rate and permeation breakthrough time should be considered.

Occupational protective clothing (depending on conditions in which it has to be used, in particular as regards the period for which it is worn, which shall be determined on the basis of the seriousness of the risk, the frequency of exposure to the risk, the characteristics of the workstation of each worker and the performance of the protective clothing). See Australian/New Zealand Standard AS/NZS 4501 for more information.

Eye and Face Protection:

Eye and face protectors for protection against splashing materials or liquids. See Australian/New Zealand Standard AS/NZS 1337 for more information.

9 Physical and Chemical Properties

Appearance:

Form:	Liquid
Colour:	Clear yellow
Odour:	Characteristic hydrocarbon solvent odour
Odour Threshold:	No information available
pH-Value:	No information available
Melting point/freezing point:	No information available
Initial Boiling Point/Boiling Range:	No information available
Flash Point:	>70 °C
Flammability:	Combustible Liquid Class 1
Auto-ignition Temperature:	No information available
Decomposition Temperature:	No information available
Explosion Limits:	
Lower:	No information available
Upper:	No information available
Vapour Pressure:	No information available
Relative Density at 20 °C:	1.05
Vapour Density:	No information available
Evaporation Rate:	No information available
Solubility in Water:	Emulsifies into water.

10 Stability and Reactivity

Possibility of Hazardous Reactions: Hazardous polymerisation will not occur.

Chemical Stability: Stable at ambient temperature and under normal conditions of use.

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Conditions to Avoid: Heat, sparks, open flames, hot surfaces and direct sunlight.**Incompatible Materials:** Strong oxidising agents, strong acids and strong bases.**Hazardous Decomposition Products:**

Oxides of carbon, nitrogen, nitrogen oxides, other nitrogen compounds, hydrogen cyanide, oxides of sulphur, other sulphur compounds, oxides of phosphorous, other phosphorous compounds, smoke and water.

11 Toxicological Information

Toxicity:**LD₅₀/LC₅₀ Values Relevant for Classification:****91-20-3 naphthalene**Oral LD₅₀ 490 mg/kg (rat)Dermal LD₅₀ 5000 mg/kg (rat)**22224-92-6 fenamiphos (ISO)**

Oral LD50 2.3-19.4 mg/kg (rat)

Dermal LD50 178-225 mg/kg (rabbit)

Inhalation LC50 >91-100 mg/L - 4 hr (rat)

Acute Health Effects**Inhalation:** May cause symptoms similar to ingestion.**Skin:** Toxic in contact with skin. May cause symptoms similar to ingestion.**Eye:**

May cause eye irritation, stinging, reddening and watering. Prolonged exposure or delayed treatment may cause permanent eye damage.

Ingestion:

Fatal if swallowed. May be fatal if swallowed and enters airways. May cause inco-ordination, headache, dizziness, nausea, abdominal cramps, excessive sweating and salivation, blurred vision, unconsciousness, incontinence, convulsions, fatigue, slowed heart rate and siezures.

Skin Corrosion / Irritation: Based on classification principles, the classification criteria are not met.**Serious Eye Damage / Irritation:** Based on classification principles, the classification criteria are not met.**Respiratory or Skin Sensitisation:** Based on classification principles, the classification criteria are not met.**Germ Cell Mutagenicity:** Based on classification principles, the classification criteria are not met.**Carcinogenicity:**

Suspected of causing cancer.

Naphthalene is classified by Safe Work Australia as Carcinogen Category 3.

Naphthalene is classified by IARC as Group 2B - Possibly carcinogenic to humans.

Reproductive Toxicity: Based on classification principles, the classification criteria are not met.**Specific Target Organ Toxicity (STOT) - Single Exposure:**

Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Repeated Exposure:

Based on classification principles, the classification criteria are not met.

Aspiration Hazard: May be fatal if swallowed and enters airways.**Chronic Health Effects:**

May cause depression of cholinesterase activity and increased thyroid, liver, heart and brain weights.

Existing Conditions Aggravated by Exposure: No information available

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Additional toxicological information:

The Australian Acceptable Daily Intake (ADI) for fenamiphos for a human is 0.0001 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 0.014 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. (Ref: Comm. Dept. of Health and Ageing Office of Chemical Safety, 'ADI List', June 2014).

12 Ecological Information

Ecotoxicity:

Non-toxic to bees.

Highly toxic to birds.

LD50 0.5 mg/kg (ring-necked pheasant)

Aquatic toxicity:**22224-92-6 fenamiphos (ISO)**LC₅₀ 0.11 mg/L (rainbow trout)

3.2 mg/L (goldfish)

9.6 mg/L (bluegill)

Very toxic to aquatic life with long lasting effects.

Persistence and Degradability:

Biodegradable. Moderately persistent in soils. Half-life in soil is about 50 days.

Bioaccumulative Potential: Bioaccumulation is not expected to occur.**Mobility in Soil:** The product is not strongly adsorb to soil, and so may be mobile in soils..**Other adverse effects:** No information available

13 Disposal considerations

Disposal Methods and Containers: Dispose according to applicable local and state government regulations.**Special Precautions for Landfill or Incineration:**

Please consult your state Land Waste Management Authority for more information.

14 Transport information

UN Number**ADG, IMDG, IATA**

UN3018

Proper Shipping Name**ADG**

3018 ORGANOPHOSPHEROUS PESTICIDES, LIQUID TOXIC, (fenamiphos (ISO)) ENVIRONMENTALLY HAZARDOUS

IMDG

ORGANOPHOSPHEROUS PESTICIDES, LIQUID TOXIC, (fenamiphos (ISO)), MARINE POLLUTANT

IATA

ORGANOPHOSPHEROUS PESTICIDES, LIQUID TOXIC, (fenamiphos (ISO))

Dangerous Goods Class**ADG Class:**

6.1 Toxic substances.

Packing Group:**ADG, IMDG, IATA**

II

Marine pollutant:

Yes

Symbol (fish and tree)

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EMS Number:	F-A,S-A
Hazchem Code:	2X
Special Provisions:	61, 223, 274
Limited Quantities:	5L
Packagings & IBCs - Packing Instruction:	P001, IBC03, LP01
Packagings & IBCs - Special Packing Provisions:	No information available
Portable Tanks & Bulk Containers - Instructions:	T7
Portable Tanks & Bulk Containers - Special Provisions:	TP2, TP28

15 Regulatory information

Australian Inventory of Chemical Substances:

22224-92-6	fenamiphos (ISO)
64742-94-5	Solvent naphtha (petroleum), heavy arom.
91-20-3	naphthalene

Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:

Poisons Schedule: 7

16 Other information

Date of Preparation or Last Revision: 02.02.2017**Prepared by:** MSDS.COM.AU Pty Ltdwww.msds.com.au

Abbreviations and acronyms:

ADG: Australian Dangerous Goods
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 LC₅₀: Lethal concentration, 50 percent
 LD₅₀: Lethal dose, 50 percent
 IARC: International Agency for Research on Cancer
 STEL: Short Term Exposure Limit
 TWA: Time Weighted Average
 NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)
 Flammable Liquids 4: Flammable liquids – Category 4
 Acute Toxicity (Oral) 2: Acute toxicity – Category 2
 Acute Toxicity (Oral) 4: Acute toxicity – Category 4
 Acute Toxicity (Dermal) 3: Acute toxicity – Category 3
 Carcinogenicity 2: Carcinogenicity – Category 2
 Aspiration Hazard 1: Aspiration hazard – Category 1
 Aquatic Acute 1: Hazardous to the aquatic environment, short-term (Acute). Category 1
 Aquatic Chronic 1: Hazardous to the aquatic environment, long-term (Chronic). Category 1

Data compared to the previous version altered: GHS format

Disclaimer

This SDS is prepared in accord with the Safe Work Australia document "Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - February 2016"

The information contained in this safety data sheet is provided in good faith and is believed to be accurate at the date of issuance. Titan Ag Pty Ltd makes no representation of the accuracy or comprehensiveness of the information and to the full extent allowed by law excludes all liability for any loss or damage related to the supply or use of the information in this material safety data sheet. MSDS.COM.AU Pty Ltd is not in a position to warrant the accuracy of the data herein. The user is cautioned to make their own determinations as to the

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suitability of the information provided to the particular circumstances in which the product is used.