

MATERIAL SAFETY DATA SHEET



PCT International Pty Ltd

ABN 44 101 170 923

Unit 1 / 74 Murdoch Circuit, ACACIA RIDGE QLD 4110

sales@pct.au.com

Ph: 61 7 3711 7022

Fax: 61 7 3711 7055

OPTEM DUO™

Termiticide and Insecticide

Classified as hazardous according to criteria of NOHSC

1. IDENTIFICATION OF THE PRODUCT AND THE MANUFACTURER

Product Name: OPTEM DUO Termiticide and Insecticide
Product Code: none
Product Use: termiticide and insecticide for use as described on the product label.
Poison Schedule: S6
Supplier: PCT International Pty Ltd
ABN: 44 101 170 923
Street Address: Unit 1 / 74 Murdoch Circuit, ACACIA RIDGE QLD 4110
Telephone: + 61 7 3711 7022
Facsimile: + 61 7 3711 7055

Emergency telephone No: 1800 630 877

Other Information: This MSDS describes, to the best of our knowledge, the properties of the concentrated product. The physical properties and some of the assessments do not apply to the properties of the product once it has been diluted for application. Acute health effects of the diluted product are likely to be much less severe.

MSDS Creation Date: 18th September 2009

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Formulation Type: Liquid – emulsifiable concentrate

Ingredients	CAS No	Concentration
Chlorpyrifos	2921-88-2	450 g/L
Hydrocarbon solvent	64742-94-5	522.7 g/L
Surfactants not considered to be hazardous		to 100%

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3. HAZARDS IDENTIFICATION

Emergency Overview Hazardous substance ; Dangerous goods ; Harmful to aquatic organisms.

Physical Appearance

Form: Liquid
Colour: Pale Yellow
Odour: Characteristic mercaptan odour
Water Solubility: Disperses as an emulsion

Potential Health Effects

Eyes: Irritating to the eyes
Skin: May cause slight irritation
Ingestion: Toxic based on acute animal studies. Symptoms of poisoning include headaches, dizziness, muscular cramps, incoordination, respiratory difficulties and trembling.
Inhalation: Toxic based on acute animal studies. Effects on humans are as above.
Primary Routes of Entry: Eyes, Skin, Inhalation, Ingestion
Target Organs: Eyes, Skin, Respiratory Tract, Digestive System
Carcinogenicity: Not listed by NTP, IARC, ACGIH or OSHA as a carcinogen

4. FIRST AID MEASURES

Inhalation: Remove victim to fresh air. Give one Atropine tablet every 5 minutes until dryness of the mouth occurs. Seek medical advice.
Skin Contact: Remove contaminated clothing. Wash affected areas with plenty of soap and water. Give one atropine tablet every 5 minutes until dryness of the mouth occurs. Seek medical assistance.
Eye Contact: Immediately wash the eye with water for at least 15 minutes, and seek medical attention.
Ingestion: If swallowed, give one atropine tablet every 5 minutes until dryness of the mouth occurs.
First Aid Facilities: If poisoning occurs, contact a doctor or Poisons Information Centre on **13 11 26** (Australia). Show this MSDS to a medical practitioner when seeking medical assistance.
General Advice: Remove soiled or soaked clothing immediately.

Information for doctor:

Chlorpyrifos is a cholinesterase inhibitor. Atropine by injection or atropent/ ipratropium by airway puff are the preferred antidotes. Oximes such as 2 PAM/ protopam may be therapeutic if used early, but only if used in conjunction with atropine. Fortune 500 contains petroleum-like solvents, and the benefits of inducing vomiting must be weighed against the possibility of chemical pneumonitis. If lavage is performed, endotracheal or oesophagoscopy control is advisable.

5. FIRE-FIGHTING MEASURES

Fire and Explosion Hazards: Will support combustion- a volatile combustible solvent is in the formulation. A combination of vapours of the solvents and air may form an explosive mixture. Rapid decomposition of the active ingredient occurs at temperatures greater than 160°C, resulting in the formation of hazardous by-products. Fire decomposition by-products may form toxic and corrosive mixtures in confined spaces. Drum explosion is likely if confined at temperatures greater than 160°C. Intact containers exposed to excessive heat should be cooled with water to reduce drum internal pressure.

Fire Extinguisher type: Carbon Dioxide, dry chemical, foam or water fog. Water fog or fine spray is preferred for large fires.

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Fire Fighting Procedures & Precautions:

Full protective gear, including self-contained breathing apparatus to AS1716, must be worn. Ensure that no spillage enters drains or watercourses.

Hazardous Decomposition

Products:

May give off oxides of phosphorous or chlorine products.

Flash Point:

67°C

Flammability Class:

3

6. ACCIDENTAL RELEASE MEASURES

Methods for Cleaning Up/ Taking Up:

Spills: Dealing with spills has the potential to increase the risk of personal exposure- during such operations, ensure that protective clothing is worn as detailed below. Avoid contact with spilled material or contaminated surfaces. Keep people and animals away. Prevent spillage from entering drains, sewers or watercourses. If contamination thereof is unavoidable, warn the local water authority. Spills should be contained and absorbed with soil, sand, sawdust, clay, cat litter or other similar material, and once absorption is complete, this material then be placed in sealable, labeled, drums for safe disposal in an approved landfill, and in accordance with the requirements of local or State Waste Management Authorities. Alternatively, bury under at least 500^{mm} of soil in an area away from crops, pastures, homes or water sources. To decontaminate spill area, tools and equipment, wash with a suitable solution, e.g. organic solvent, detergent, bleach or caustic, and add this material to the drums of waste already collected. Label all contents. Do not burn empty containers or product.

7. HANDLING AND STORAGE

Advice on safe

Handling:

Keep out of reach of children. Avoid contact with eyes and skin. Wash hands after use, and before smoking or eating / drinking. Wash protective gear and clothing after each day's use.

Storage information:

Keep product in the original container, tightly closed, in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components	CAS No	Basis	Type	Value	Note
Chlorpyrifos	2921-88-2	NOHSC	TWA	0.2mg/m ³	

General protective

Measures:

Avoid contact with eyes and skin
Do not inhale mists.

Hygiene Measures:

No smoking, eating or drinking allowed when using this product.
Wash hands before breaks and at end of work shift.
Protective ointment is recommended.

Ventilation:

Use product in well ventilated areas only. If necessary, use of local exhaust ventilation may be required to reduce the level of airborne mist concentration.

Personal Protective

Equipment:

When opening the container and preparing a treatment mix, and while using the prepared mix, wear cotton overalls buttoned to the neck and wrists, washable hat, and elbow-length PVC gloves to AS2161. Wear an appropriate face shield or goggles. Wash all these items after each day's use.

Respirator:

Use a respirator with chemical cartridge to AS1715 when working in poorly ventilated areas or where there is a potential for contact with spray mist, drift, vapours or splashing.

Engineering Controls:

Use in a well ventilated area only. Good general (mechanical) ventilation should be sufficient to control airborne mist levels.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Description: Clear, pale yellow liquid.
Odour: Mercaptan odour.
Specific Gravity: about 1.072 @ 20°C.
Water Solubility: Disperses as an emulsion.
Vapour Pressure: 2.7mPa at 25°C.
Boiling Point: about 183°C
Flash Point: >65°C.
Viscosity, dynamic: not measured

10. STABILITY AND REACTIVITY

Conditions to avoid: None with proper storage and handling, other than extreme heat.
Thermal
Reactivity: Stable under normal conditions of use.
Conditions to Avoid: Extreme heat and fire.
Incompatibilities: Strong oxidizing agents.
Fire Decomposition: Carbon Dioxide, carbon monoxide (if incomplete combustion) and smoke. Also nitrogen and oxides of nitrogen, sulfur and phosphorous.
Polymerisation: This product is unlikely to undergo polymerization.

11. TOXICOLOGICAL INFORMATION

Acute toxicity - Oral: LD₅₀ = 409 mg/kg (rat).
Acute toxicity - Dermal: LD₅₀ > 2000 mg/kg (rat).
Acute toxicity - Inhalation: LC₅₀ = 2.62 mg/l, 4 hours (rat).
Skin irritation: Severely irritating (rabbit).
Eye irritation: Irritating to eyes (rabbit).
Sensitization: Guinea pig maximization test: sensitizer.
Carcinogenicity: Not carcinogenic.
Mutagenicity: Not mutagenic.
Reproduction toxicity: Not teratogenic in animal experiments.
Note: Harmful by inhalation and in contact with skin
Irritant to skin
Risk of serious damage to eyes
The toxicological data refer to the undiluted 100% product.

12. ECOLOGICAL INFORMATION

Ecotoxicity Effects:
Ecotoxicity: LD₅₀ = 476 mg/kg, (birds).
LC₅₀ = 7.1 µg/l, 96 hours, (rainbow trout).
Toxic to bees

Further ecological information:

Ecological notes: This product is considered to be a water pollutant. It is classified as immobile in soil and is not expected to leach. Do not discharge product unmonitored into the environment. The ecotoxicological data refer to the undiluted 100% product.

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13. DISPOSAL CONSIDERATIONS

ALWAYS DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

Product Disposal: In accordance with local authority regulations, take to special waste incineration plant.

Container Disposal: Dispose of empty, used containers by triple rinsing, or preferably pressure rinsing. Add the rinsate to the spray tank or dispose of the rinsate in a disposal pit away from desirable plants and their roots and from watercourses. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return cleaned containers to a recycler or designated collection point. If not recycling, break, crush or puncture empty containers and bury in a local authority landfill. If no landfill available, bury the containers at least 500^{mm} deep in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

14. TRANSPORT INFORMATION

UN No. : 3018
Shipping Name : Organophosphorus
Dangerous Goods Class : 6
Subsidiary Risk : None Allocated
Pack Group : III
Special Precaution for user : TOXIC
Hazchem Code : 3WE



EPG: available on request
Storage and Transport: Listed as Dangerous Goods for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.

15. REGULATORY INFORMATION

APVMA Approval No: 55755/0502
Risk Phrases: R20 Harmful by inhalation R22 Harmful if swallowed
R36 Irritating to eyes R65 Harmful- May cause lung damage if swallowed.
Safety Phrases: S20/21 When using, do not eat, drink or smoke.
S24/25 Avoid contact with skin and eyes.
Poisons Schedule: S6
Packaging & Labeling: READ SAFETY DIRECTIONS BEFORE OPENING OR USING
Hazard Category
AICS (Australia): Listed on the Australian Inventory of Chemical Substances.

16. OTHER INFORMATION

Reason for Revision: replaces MSDS of Dec2004. Several minor corrections.
Contact Person/Point: Mr David Pearson Phone: (07) 3711 7022

This MSDS contains only safety-related information. For other data, see product literature.

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...End of MSDS...