

# Material Safety Data Sheet

## OPTEM 500 TERMITICIDE

**This Product is Toxic in Contact with Skin and if Swallowed. It is Designated a Hazardous Substance by the National Occupational Health & Safety Commission.**

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### IDENTIFICATION

Product Name:	Optem 500 Termiticide
UN No.	3018
Dangerous Goods Class:	6.1
Hazchem Code;	3WE
Poison Schedule:	S6
Use:	For control of subterranean termites (including pre and post-construction use) and other domestic insect pests as specified on the label

#### Physical Description/Properties:

Appearance:	Pale yellow liquid
Odour:	Mercaptan odour
Boiling Point:	about 183 degrees C (solvent)
Vapour Pressure:	about 23mm Hg @ 20 degrees C
Specific Gravity:	about 1.072 @ 20 degrees C
Flash Point:	>65 degrees C (Pensky Marten Closed Cup)
Flammability Limits:	Lower flammability limit 0.6% Upper flammability limit 6.0%
Solubility in Water:	Disperses as an emulsion.

#### Ingredients:

	Proportion	CAS No.:
Chlorpyrifos	500g/L	2921-88-2
Petroleum Solvent	< 500g/L	64742-94-5
Emulsifiers, Inerts	< 100g/L	-

### HEALTH HAZARD INFORMATION

Health Effects	Excessive exposure may cause organophosphate type cholinesterase inhibition. Symptoms of excessive exposure to the active ingredient may include headaches, dizziness, incoordination, muscle twitching, tremors, nausea, abdominal cramps, diarrhoea, sweating, constricted pupils, blurred vision, salivation and tearing, tightness in chest, excessive urination and convulsions. The health effects of chlorpyrifos have been studied extensively using toxicity tests conducted on animals. These tests are conducted using high doses compared to those humans are most likely to come into contact with.
Acute if Ingested:	The acute oral toxicity is moderate high. For a similar formulation, the oral LD <sub>50</sub> for rat is 1,173mg/kg. Ingestion of the concentrate may cause injury or death. If the concentrate enters the lungs, lung damage may occur due to chemical pneumonia caused by the solvents.

Eye:	May cause temporary, slight eye irritation.
Skin:	The acute dermal toxicity is moderate but prolonged contact may result in absorption of harmful amounts. The dermal LD <sub>50</sub> rabbit is above 2,000 mg/kg.
Inhalation:	Acute inhalation toxicity is moderate but excessive exposure to spray mist may be harmful. Prolonged exposure to solvent vapour from the concentrate may cause eye and respiratory tract irritation, headache, dizziness and narcotic effects. The inhalation LD <sub>50</sub> for a similar formulation was >1690mg/m <sup>3</sup> /4 hrs.
Chronic:	Chlorpyrifos has not been shown to cause cancer. Chlorpyrifos does not interfere with reproduction and does not cause genetic damage or birth defects. Chlorpyrifos is rapidly metabolised and excreted, and as a result, does not accumulate in the body.
<b>First Aid:</b>	A Poisons Information Centre 13 11 26 or a doctor should be consulted in every case of suspected chemical poisoning. Never give fluids or induce vomiting if a patient is unconscious or convulsing regardless of cause of injury.
Ingested:	If ingested, induce vomiting preferably using Ipecac syrup APF. Give one atropine tablet every quarter hour until dryness of the mouth occurs. Get to a Doctor hospital quickly.
Eye:	If in eyes, hold eyes open and flood with water for at least fifteen minutes and see a Doctor.
Skin:	Remove contaminated clothing and wash skin thoroughly with soap and water for at least fifteen minutes. If symptoms of poisoning occur, give atropine tablets as above and get to a Doctor or hospital quickly.
First Aid Facilities:	Normal workplace First Aid Facilities plus Ipecac syrup and atropine tablets.
Advice to Doctor:	Chlorpyrifos is a cholinesterase inhibitor. Atropine by injection or atrovent/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. Zigma 300 Insecticide contains petroleumlike solvents and the benefits of inducing vomiting must be weighed against the possibility of chemical pneumonitis. If lavage is performed, endotracheal or oesophagosopic control is advisable.

## PRECAUTIONS FOR USE

**Exposure Standards:**

Worksafe Exposure Standard:

Chlorpyrifos 0.2mg/m<sup>3</sup>-skPetroleum Solvent\* 566.0mg/m<sup>3</sup>

\*Where sk (skin notation) indicates that absorption through the skin may be a significant source of exposure.

Engineering Controls:

Atmospheric levels should be maintained below the recommended exposure guidelines. Local exhaust ventilation may be necessary for some operations.

**Health Surveillance**

Flammability:

Class 3.3 combustible liquid. Not flammable under normal conditions of use

**Personal Protection:**

- Eyes:** Eye protection should be worn when splashing is possible. Wear splash proof goggles or a full face shield. Consult AS 1336 and 1337. If product in eyes, wash it out immediately with water.
- Clothing:** When opening the container and preparing spray wear cotton overalls buttoned to the neck and wrist. Wear a washable hat. Consult AS 2919. If clothing becomes contaminated with product, or wet with spray remove clothing immediately. If product or spray gets on skin, immediately wash area with soap and water.
- Gloves:** Avoid contact with the skin. Wear gauntlet style chemical protective gloves made of rubber or neoprene PVC. Inspect regularly for leaks. Consult AS 2161.
- Respiratory:** Do not breathe vapour/spray/fumes. Use an organic-chemical cartridge respirator when working in poorly ventilated areas or where there is potential for spray mist, splashing or vapours. Consult AS 1715.
- Other:** Do not eat, drink or smoke until after washing. Wash thoroughly after handling. After each days use wash personal protection equipment, including gloves, goggles or face shield, respirator face piece and contaminated clothing.

**SAFE HANDLING INFORMATION**

- Storage and Transport:** Classified as a dangerous good. Transport and store in accordance with regulations for dangerous goods. Store in tightly closed original containers in a locked well ventilated place out of direct sunlight. Class 6 Poisonous (toxic) substances shall not be loaded in a vehicle with: Explosives:  
Class 3: Flammable liquids  
Class 5.1: Oxidising Agents  
Class 5.2: Organic Peroxides  
Foodstuffs and foodstuff empties.  
Avoid contact with food, clothing, drugs or other household goods during transport.  
Correct Shipping Name: Pesticides Organophosphorus, liquid, toxic, N.O.S.  
UN No. 3018  
Class Labels: Type 6.1 (b)
- Fire/Explosion Hazard:** Will support combustion, volatile combustible solvent in formulation. Combination of vapours of solvents and air may form an explosive mixture. Rapid decomposition of the active ingredient occurs at temperatures greater than 160 degrees C resulting in the formation of hazardous decomposition products. Drum explosion is likely if confined at temperatures greater than 160 degrees C. Intact containers exposed to excessive heat should be cooled with water to reduce drum pressure.
- Spills and Disposal:** In the case of spillage contain and absorb spilled material with absorbent material such as sand, clay or cat litter and dispose of waste as indicated below or according to the Australian Standard 2507 - Storage and Handling of Pesticides. Wear prescribed protective clothing and equipment. Keep out animals and unprotected persons. Keep material out of streams and sewers. Vacuum, shovel or pump waste into an approved drum. To decontaminate spill area, tools and equipment, wash with a suitable solution (i.e. organic solvent, detergent, bleach or caustic) and add the solution to the drums of wastes already collected. Label for contents. Dispose of drummed wastes, including

decontamination solution, in accord with Avcare guidelines. Do not discharge into drains.

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 watercourses. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm 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.

## OTHER INFORMATION

**Ecotoxicity Data:** Chlorpyrifos is highly toxic to birds, fish and honey bees, and is moderately toxic to pets and livestock. It has low toxicity to earthworms. Chlorpyrifos does not bioaccumulate in animal systems.

**Environmental Fate:** In soil chlorpyrifos has a half life of six to two hundred and eighty days depending on sunlight, soil type and climatic conditions. Chlorpyrifos binds strongly to particles of soil and organic material, it does not leach in soils and is readily degraded by hydrolysis, microbial action and is lost by volatilisation. In water, chlorpyrifos is readily hydrolysed in twelve hours to six days, depending on pH to a pyridinol product not known to be hazardous. This further degrades into carbon dioxide and simple organic molecules.

**This product is a registered agricultural chemical with the Federal Department of Primary Industry & Energy's National Registration Authority. A comprehensive package of toxicological and environmental data for the active ingredients is held by the federal health and environment authorities. This data has been evaluated by expert, independent toxicologists and environmental scientists.**

**ALWAYS READ THE PRODUCT LABEL BEFORE USE. FOLLOW ALL DIRECTIONS FOR USE, LABEL WARNINGS AND SAFETY DIRECTIONS.**

**Emergency Contact Point:**

**Ph: 1800 630 877**

**Date: November 2000**

**The information above is correct and accurate to the best of our knowledge. However no warranty, expressed or implied is made as to its accuracy or completeness of data herein. Further research and investigation maybe required for your particular use of this product.**

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