

MATERIAL SAFETY DATA SHEET



This revision issued: September 2007

1. IDENTIFICATION OF CHEMICAL PRODUCT AND COMPANY

Product name: NOPESTS BAN[®] TERMITICIDE & INSECTICIDE

Formulation type: Emulsifiable concentrate.

Recommended use: Insecticide for use as described on the product label.

Supplier: PCT International Pty Ltd

Address: Unit 1/ 74 Murdoch Cct, ACACIA RIDGE QLD 4110 AUSTRALIA

Telephone: (61) 73711 7022

Fax: (61) 73711 7055

Website: www.pct.au.com

Contact: David Pearson

24 Hour Emergency Poisons Advice for New Zealand: NATIONAL POISON CENTRE
0800 764 766 [0800 POISON]

2. COMPOSITION of/ INFORMATION on/ INGREDIENTS

Ingredients	CAS No	Proportion
Chlorpyrifos	2921-88-2	450 – 500 g/L
Hydrocarbon solvent	64742-94-5	< 600 g/L
General surfactants	-	< 100 g/L

3. HAZARDS IDENTIFICATION

Product is hazardous according to the *Hazardous Substances (Minimum Degrees of Hazard) Regulations* 2001 of the New Zealand HSNO Act 1996.

Hazard Designation: DANGER. Classified as 3.1D (combustible liquid), 6.1C (toxic if swallowed, inhaled or by skin contact), 6.3B (mild skin irritant), 6.4A (eye irritant), 6.9A (causes damage to organs through prolonged or repeated exposure), 9.1A (very ecotoxic to aquatic life), 9.2B (ecotoxic in soil environment), 9.3A (very ecotoxic to terrestrial vertebrates), 9.4A (very ecotoxic to terrestrial invertebrates).

Risk Phrases:

- R65 Harmful-may cause lung damage if swallowed.
- R22 Harmful if swallowed.
- R36/38 Irritating to eyes and skin.
- R50 Very toxic to aquatic organisms.

Safety Phrases:

- S24/25 Avoid contact with skin and eyes.
- S2 Keep out of reach of children
- S15 Keep away from heat
- S20/21 When using do not eat, drink or smoke.
- S36 Wear suitable protective clothing.

4. FIRST AID MEASURES

General Information:	If poisoning occurs, immediately contact a doctor or National Poison Centre 0800 764 766 [0800 POISON] and follow the advice given. If medical advice is needed, have product container or label at hand.
Inhalation:	If experiencing respiratory problems, call National Poison Centre 0800 764 766 (0800 POISON) or doctor. Remove person to fresh air, and keep rested. Administer artificial respiration if breathing has stopped.
Skin Contact:	Remove all contaminated clothing and shoes. Wash product off skin immediately with soap and plenty of water. Seek medical advice if irritation persists. Wash and dry contaminated clothing before re-use.
Eye Contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention.
Ingestion:	Do NOT induce vomiting. Rinse mouth. Immediately get medical attention.
Symptoms:	Symptoms of excessive exposure to Chlorpyrifos may include headaches, dizziness, lack of coordination, muscle twitching, tremors, nausea, abdominal cramps, diarrhoea, sweating, constricted pupils, blurred vision, salivation and tears, tightness of the chest, and convulsions. Show this MSDS to a medical practitioner when seeking medical assistance.
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. NOPESTS BAN contains a hydrocarbon solvent, 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. Formulation contains a volatile combustible solvent. 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:	Foam, chemical or fine low pressure water spray. Do not use a water jet from a fire hose.
Fire Fighting Procedures & Precautions:	Fire fighters should wear full protective clothing and self-contained breathing apparatus. Keep intact containers cool by spraying with water. Do not allow contaminated water to be released into the environment.
Hazardous Decomposition Products:	No data available.
Flash Point:	72°C

Flammability Class: Combustible liquid (3.1D).

6. ACCIDENTAL RELEASE/ SPILLS MEASURES

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, contact the emergency services. 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 Regional 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

Handling: Read label before use. When used to be under control of Approved Handler. Substance subject to Tracking control. Only for use by Professional Pest Controllers.

NO SMOKING. Do not use around sources of ignition or heat sources.

Keep out of reach of children.

Do not eat, drink or smoke when using this product. Avoid contact with skin and eyes. Wear protective clothing, gloves and eye protection. Do not inhale the spray mist. Use product and diluted mix only in a well ventilated area. Wash hands and any exposed skin thoroughly after handling. Minor repeated exposure can have a cumulative poisoning effect. Have an emergency supply of atropine tablets (0.6 mg) at hand.

Avoid release to environment.

Storage: Store securely when not under control of Approved Handler. Store product in closed, original containers in a cool, well ventilated area away from direct sunlight.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

Exposure Limits: Chlorpyrifos TWA (skin) 0.2 mg/m³
NZ Department of Labour Workplace Exposure Guidelines, 2002.

Ventilation: Use local exhaust ventilation when using the product or diluted spray.

Eye Protection: Avoid contact with the eyes. Wear safety goggles or a face shield when pouring, mixing or applying the product.

Skin Protection: Avoid contact with the skin. Wear cotton overalls buttoned to the neck and wrists, elbow-length PVC gloves and chemical-resistant footwear. Wash clothing after each days use. Contaminated work clothing should not be allowed out of the workplace.

Respiratory: Wear an approved respirator while using the product, to prevent inhalation of vapour or spray mist.

9. PHYSICAL & CHEMICAL PROPERTIES

Physical Description:	Clear yellow liquid
Odour:	Mercaptan odour.
Specific Gravity:	1.07
Water Solubility:	Disperses as an emulsion in water.
Volatility:	Not available
Evaporation Rate:	Not available.
Boiling Point:	184°C
Flash Point:	72 °C

10. STABILITY & REACTIVITY

Reactivity:	Stable under normal conditions of storage and use.
Conditions to Avoid:	No data available.
Incompatibilities:	Strong oxidizing agents.
Fire Decomposition:	Rapid decomposition of the active ingredient occurs at temperatures above 160°C. May include carbon dioxide, carbon monoxide (if incomplete combustion) and smoke. Also nitrogen and oxides of nitrogen, sulfur and phosphorous.
Polymerisation:	No data available.

11. TOXICOLOGICAL INFORMATION

Chronic Toxicity:	Possible chronic health effects from exposure to NOPESTS BAN are based on results from studies on the active ingredient. Chlorpyrifos has been shown not to cause cancer, genetic damage, reproductive or developmental effects. It is rapidly metabolised and excreted, and consequently does not accumulate in the body. Repeated or prolonged exposure can cause a cumulative poisoning effect. Affects central nervous system. Oral NOAEL, 0.03 mg/kg b.w./day; Dermal LOAEL 5 mg/kg b.w./day; Inhalation LOAEL 0.0276 mg/L/day.
Ingestion:	The product is toxic if swallowed. Oral LD ₅₀ Rat 90-270 mg/kg b.w.
Inhalation:	The product is toxic if inhaled.
Skin contact:	The product is toxic if absorbed through the skin. Mild skin irritant. Dermal LD ₅₀ Mice 74 mg/kg b.w. , Dermal LD ₅₀ Rabbit >2,000 mg/kg b.w.
Eye contact:	Irritating to the eyes.

12. ECOLOGICAL INFORMATION

Effects on Birds:	Highly toxic to birds.
Effects on Aquatic Life:	Chlorpyrifos is highly toxic to fish, aquatic invertebrates and estuarine and marine organisms.
Effects on Other Animals (non-target species):	Chlorpyrifos is highly toxic to honeybees and should not be used when bees are actively collecting pollen and nectar. It is moderately toxic to pets and livestock, and has low toxicity to earthworms.
Environmental Persistence & Degradation:	Chlorpyrifos adheres strongly to soil particles and organic material, and it is not readily soluble in water. As a result, it is not mobile in soils and is unlikely to leach out or to contaminate groundwater. Adsorbed Chlorpyrifos is subject to degradation by UV light, chemical hydrolysis and by soil microbes. It has a half-life of 6 to 280 days depending on sunlight, soil type and climatic conditions.

13. DISPOSAL CONSIDERATIONS

Dispose of empty, used containers by triple rinsing with water, or preferably pressure rinsing. Add the rinsings to the spray tank or dispose of the rinsings in a disposal pit away from desirable plants and their roots and from drains, sewers or 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. Empty containers and product should not be burnt.

14. TRANSPORT INFORMATION

UN Number:	3018
Proper Shipping Name:	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC
Class and Subsidiary Risk:	6.1
Packing Group:	III
Hazchem Code:	2X

15. REGULATORY INFORMATION

ERMA Register No: **HSR000224**
Refer to www.ermanz.govt.nz for information on Controls for this substance.

16. OTHER INFORMATION

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

The above information 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 may be required for your particular use of this product.

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