

Material Safety Data Sheet

PROTHOR* Water-based Termiticide

Section 1 - IDENTIFICATION OF CHEMICAL PRODUCT AND COMPANY

This product is **NOT** classified as Hazardous according to the criteria of NOHSC Australia.

Not a Dangerous Good according to the Australian Dangerous Goods (ADG) Code.

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Substance: Imidacloprid is a nicotinic insecticide.

Trade Name: Prothor Water-based Termiticide

Product Use: Termiticide for use as described on the product label.

Creation Date: April 2006

Revision Date: February 2009

Section 2 - Hazards Identification

Risk Phrases: Not Applicable.
Safety Phrases: Not Applicable.
SUSDP Classification: S5 (Standard for the Uniform Scheduling of Drugs and Poisons)
ADG Classification: None allocated. Not a Dangerous Good.
UN Number: None allocated

Emergency Overview

Physical Description & colour: Cream opaque suspension.
Odour: Mild characteristic odour.
Major Health Hazards: Symptoms of intoxication that may arise if the product is grossly mishandled include: apathetic state, depressed muscular tone, respiratory disturbance and trembling. Muscular cramps are possible in severe cases of poisoning.

Potential Health Effects

See section 11 for Chronic exposure studies.

Inhalation:

Short term exposure: Available data indicates that this product is not harmful.

Skin Contact:

Short term exposure: Repeated exposure may cause some irritation.

Eye Contact:

Short term exposure: This product may be slightly irritating to eyes, but is unlikely to cause anything more than mild transient discomfort.

Ingestion:

Short term exposure: Harmful if swallowed.

Carcinogen Status:

NOHSC: No significant ingredient is classified as carcinogenic by NOHSC.

NTP: No significant ingredient is classified as carcinogenic by NTP.

IARC: No significant ingredient is classified as carcinogenic by IARC.

Section 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS No	Conc, %	TWA (mg/m ³)	STEL (mg/m ³)
Imidacloprid	138261-41-3	20	not set	not set
Other non hazardous ingredients	secret	10 approx	not set	not set
Water	7732-18-5	to 100	not set	not set

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non-hazardous ingredients are also possible.

The TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

Section 4 - FIRST AID MEASURES

General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 11 26 from anywhere in Australia and is available at all times. Have this MSDS with you when you call.

Inhalation: No first aid measures normally required. However, if inhalation has occurred, and irritation has developed, remove to fresh air and observe until recovered. If irritation becomes painful or persists more than about 30 minutes, seek medical advice.

Skin Contact: Irritation is unlikely. However, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed. If in doubt obtain medical advice.

Eye Contact: No effects expected. If irritation does occur, flush contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed. Obtain medical advice if irritation becomes painful or lasts more than a few minutes.

Ingestion: If swallowed, do NOT induce vomiting. Wash mouth with water and contact a Poisons Information Centre, or call a doctor.

Section 5 - FIRE FIGHTING MEASURES

Fire and Explosion Hazards: Under normal circumstances there is no risk of an explosion from this product if it is involved in a fire.

Only small quantities of decomposition products are expected from this product at temperatures normally achieved in a fire. This will only occur after heating to dryness.

Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

Extinguishing Media: Not Combustible. Use extinguishing media suited to burning materials.

Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade.

Flash point: Does not burn.

Upper Flammability Limit: Does not burn.

Lower Flammability Limit: Does not burn.

Autoignition temperature: Not applicable - does not burn.

Flammability Class: Does not burn.

Section 6 - ACCIDENTAL RELEASE MEASURES

Accidental release: In the event of a major spill, prevent spillage from entering drains or water courses. Wear full protective clothing including face mask, face shield and gauntlets. All skin areas should be covered.

Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly.

After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services.

Full details regarding disposal of used containers, spillage and unused material may be found on the label. If there is any conflict between this MSDS and the label, instructions on the label prevail. Ensure legality of disposal by consulting regulations prior to disposal.

Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

Section 7 - HANDLING AND STORAGE

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this MSDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Storage: Store in the closed original container, in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight. Make sure that the product does not come into contact with substances listed under "Materials to avoid" in Section 10. Some liquid preparations settle or separate on standing and may require stirring before use. Check packaging - there may be further storage instructions on the label.

Section 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Industrial Clothing: **AS2919**, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

Exposure Limits TWA (mg/m³) STEL (mg/m³)

Exposure limits have not been established by NOHSC for any of the significant ingredients in this product.

Ventilation: No special ventilation requirements are normally necessary for this product. However make sure that the work environment remains clean and that vapours and mists are minimised.

Eye Protection: Eye protection is not normally required when this product is being used.

Skin Protection: Prevent skin contact by wearing impervious gloves, overalls and a washable hat. Make sure that all skin areas are covered.

Respirator: Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above. Otherwise, not normally necessary.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical Description & colour: Cream opaque suspension.

Odour: Characteristic odour.

Boiling Point: Approximately 100°C at 100kPa.

Freezing/Melting Point: Approximately 0°C.

Volatiles: Water component.

Vapour Pressure: 2×10^{-9} mBar at 20°C.

Vapour Density: No data.

Specific Gravity: Approx 1.0

Water Solubility: Miscible soluble in water.

pH: 6 - 7.

Autoignition temp: Not applicable - does not burn.

Section 10 - STABILITY AND REACTIVITY

Reactivity: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact Ensystem for advice on shelf life properties.

Conditions to Avoid: Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

Incompatibilities: No particular incompatibilities.

Fire Decomposition: Only small quantities of decomposition products are expected from this products at temperatures normally achieved in a fire. This will only occur after heating to dryness. Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

Polymerisation: This product is unlikely to undergo polymerisation processes.

Section 11 - TOXICOLOGICAL INFORMATION

- Toxicity for Product:** Oral toxicity: LD₅₀ rat: > 2000 mg/kg i.e. practically non-toxic,
 Dermal toxicity: LD₅₀ rat: >5000 mg/kg i.e. practically non-toxic
 Inhalation toxicity: LC₅₀ rat: approx 6000 mg/m³ i.e. practically non-toxic
- Reproductive Effects:** The NOAEL for maternal effects was 10 mg/kg bw per day, and the NOAEL for developmental effects was 30 mg/kg bw per day (Becker et al., 1988a).
- Carcinogenic Effects:** There was no evidence of cancer in any studies.

Section 12 - ECOLOGICAL INFORMATION

- Avian acute oral LD₅₀ - Mallard: >5,000 mg/kg, bobwhite quail: 152 mg/kg, Japanese quail: 152 mg/kg.
 Avian Dietary (acute) - Bobwhite quail 2,225 mg/kg.
 Fish toxicity - Golden orfe LC₅₀ (96hr): 237 mg/L, rainbow trout LC₅₀ (96 h): 211 mg/L.
 Aquatic Acute Toxicity - Daphnia LC₅₀ (48 hr): 85 mg/L
 Soil micro-organisms - No adverse effects reported.
 Soil macro-organisms - Earthworms, LC₅₀ for *Eisenia foetida* 10.7 mg/kg dry soil.
 Harmful to honey bees by direct contact.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal: Instructions concerning the disposal of this product and its containers are given on the product label. These should be carefully followed.

Section 14 - TRANSPORT INFORMATION

ADG Code: This product is NOT classified as a Dangerous Good. No special transport conditions are necessary unless required by other regulations.

Section 15 - REGULATORY INFORMATION

AICS: All of the significant ingredients in this formulation are to be found in the public AICS Database.

Section 16 - OTHER INFORMATION

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

Acronyms:

ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail
AICS	Australian Inventory of Chemical Substances
CAS number	Chemical Abstracts Service Registry Number
Hazchem Number	Emergency action code of numbers and letters that provide information to emergency services especially fire-fighters
IARC	International Agency for Research on Cancer
NOHSC	National Occupational Health and Safety Commission
NOS	Not otherwise specified
NTP	National Toxicology Program (USA)
R-Phrase	Risk Phrase
SUSDP	Standard for the Uniform Scheduling of Drugs & Poisons
UN Number	United Nations Number

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user must review this MSDS in the context of how the product will be handled and used in the workplace.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact Ensystem so we can attempt to obtain additional information from our suppliers

Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

Please read all labels carefully before using product.