Wazary®10FL

Termite Defence for Your Home

SUMITOMO CHEMICAL

FOR INTERNAL
CIRCULATION ONLY

Yes, Wazary® 10FL is a repellent termiticide, and it's one of the most active ones yet invented. Many years of use in countries throughout the world, have shown that Wazary® 10FL forms one of the most active termiticide barriers on the market. To obtain at least 5 year protection, global field trials have indicated that dilutions of 1 : 40 (0.25% as a.i.) are recommended. Lower dilutions of 1 : 80 (0.125% as a.i.) have been shown to work for up to 3 years.

Wazary® 10FL is a water-based flowable (suspension) concentrate, which greatly reduces the hazards associated with the more common oil-based formulations. The formulation has the added advantage of being virtually odourless even in its concentrated form, ensuring no customer complaints of malodour following application.

Trench and rod soil

Drill/treat expansion joint

The main active isomer content of Wazary® 10FL has been determined to have a Koc value of 630,597 and is classified as "very strongly" adsorbed from water into organic material in the soil. This indicates that the active binds to soil better than other commercially available termiticide treatments, in effect making the soil an anti-termite barrier, and greatly extending the residual life of the product.

Using USA Environmental Protection Agency assessments on soil leaching, 90% of applied Wazary® 10FL was found to tightly bind in the top 3cm of soil. Less than 2% ever enters the leaching water, and most of this readsorbs again. The soil adsorbtion was found to be irreversible.

Wazary® 10FL is approved by Singapore's National Environmental Agency (NEA) for use in water catchment areas.

Wazary® 10FL applications at dilutions as high as 1 : 2000 (NOTE: normal dilution is between 1 : 40 and 1 : 80) have been shown to provide at least 75% protection from termite penetration, explaining the product's excellent long term residual action.

Much has been said about the relative benefits of repellent and non-repellent termiticides. With most new product arrivals being non-repellent, the argument has recently been biased towards non-repellents. It should be remembered that thorough applications of the best available repellent and non-repellent products will provide similar excellent levels of protection. In fact with its extremely high Koc value (soil binding capacity), Wazary® 10FL often gives the longest residual effect, whilst many non-repellent products suffer from activity loss after a few years due to leaching from the point of application.

Professor B. T. Forschler, looked at soil termiticide efficacy and discovered results with seven different formulated termiticides which indicated that the moniker repellent or non-repellent are a function of concentration, not the purview of any particular class of chemistries.*
In other words, any termiticide is repellent at "high" concentrations and all termiticides are non-repellent at "low" concentrations..."**
In addition, similar studies conducted by Professor C.Y. Lee, found that repellent or non-repellent characteristics of termiticides were dependent on the concentrations of termiticides used.***

* Forschler, B.T. 2009. Screening insecticides for use as soil termiticides requires a series of bioassays: lessons from trials using *Reticulitermes flavipes* (Isoptera: Rhinotermitidae): Incorporating termite behavior into termiticide bioassay design. In: Pesticides in Household, Structural and Residential Pest Management. Eds: Chris J. Peterson, Daniel M. Stout II. Vol. 1015. Chapter 5, pp 53-74. American Chemical Society.

** Forschler, B.T. 2006. Advantages and disadvantages of non-repellent termiticides. pp. 76-79. In: Proceedings of the Pest Summit 2006. Targeting Zero Pest Infestation, Singapore.

*** Yeoh, B.H. & C.Y. Lee 2007. Tunneling responses of the Asian subterranean termite, *Coptotermes gestroi* in termiticide-treated sand (Isoptera: Rhinotermitidae) Sociobiology (USA) 50: 457 - 468.).

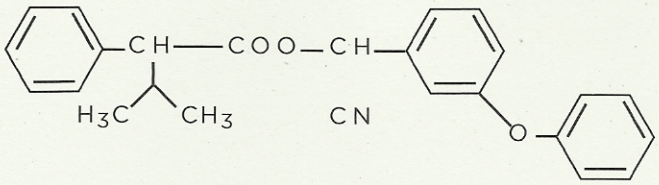
Drill/treat under slab

Short rod soil treatment

*** Identity of Wazary® 10FL**

Common name of active ingredient:

Fenvalerate Structural Formula:



Composition:

Ingredient	%
Fenvalerate (a.i.)	10
Formulation Components	14
Water	Balance
Total	100 % (w/v)

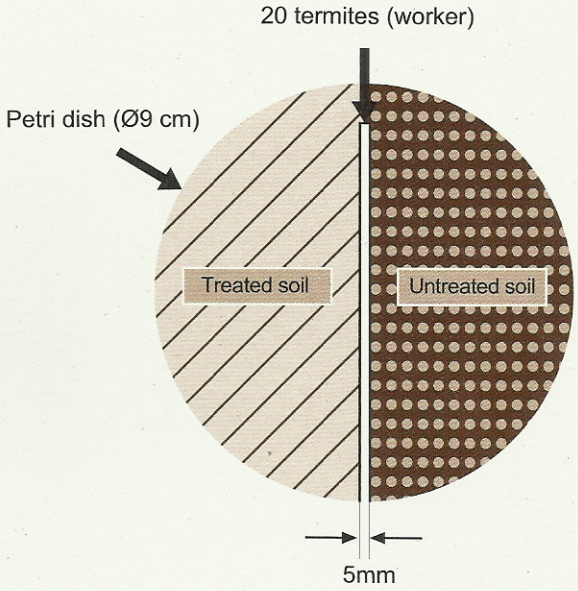
Physical & Chemical Properties

Appearance	White creamy liquid
Viscosity	614 cp / 30 rpm
Particle size	MMD 3.3Qm, maximum 10Qm
pH	6.8- 7.3

Test method (Repellency Test)

A wet filter paper was placed in a Petri dish. One half of the surface of filter paper was covered with 5g of soil treated with Wazary® 10FL and the other half was covered with 5g of untreated soil. Treated and untreated soils were separated by 5mm as figure shown below.

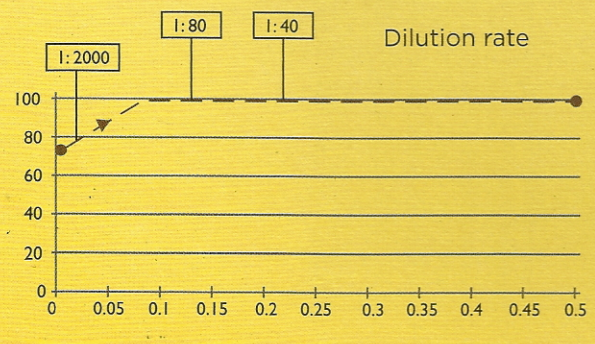
Twenty Formosan subterranean termites were released in the centre part, between the treated and untreated soil. The results are shown in the table below.



Repellent Efficacy of Wazary® 10FL

Product	Concentration as a.i. (%)	Repellency (%)
Wazary® 10FL	0.5	100
	0.25	100
	0.05	88
	0.005	75
Control	0	0

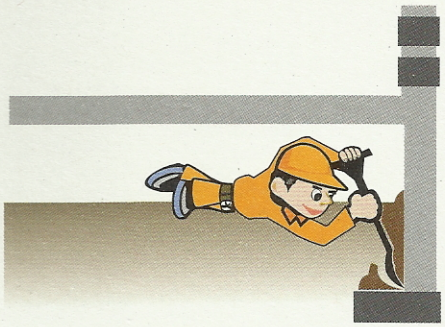
Repellency (%) of Wazary® 10FL



Wazary® 10FL works at very low dosages.

Advantages of Wazary® 10FL

1. Long residual efficacy
2. Strong repellent and kill efficacy
3. Easy to store and handle
4. Less irritation and smell
5. Low mammalian toxicity



Trench and treat soil around wall

Field test of Wazary® 10FL on subterranean termites conducted by the Royal Forest Department, Thailand showed that if applied at 1:40, Wazary® 10FL gives 6 years protection.

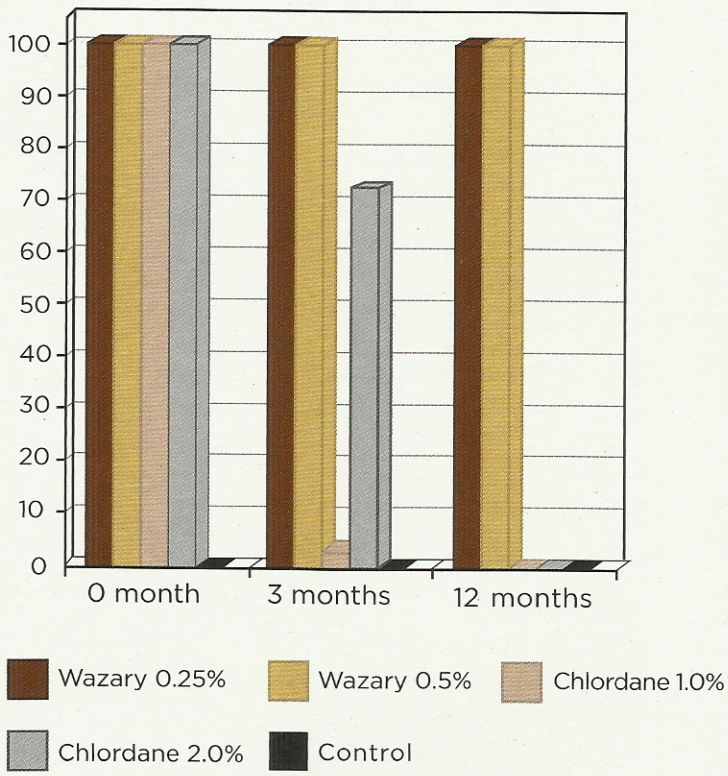
Modified ground board tests

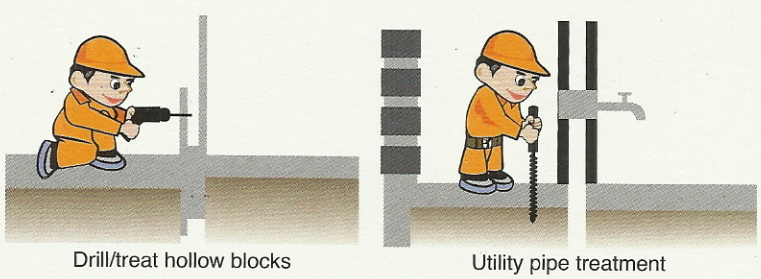
Testing chemical	Average damage (%) on 4 replications					
	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6
Wazary® 10FL 0.5% (Equivalent to 1:40)	0	0	0	0	22.5*	0

Average damage for the Control replicates over this same period was 85.4%. *Data was non-reflective of actual protection efficacy as one of the replicates was damaged.

For long-term protection, Wazary® 10FL should be diluted at the rate of 1 part : 40 parts water and applied according to label recommendations. For shorter term control, dilutions of 1 part : 80 parts water may be considered.

Proven wood protection activity - *Coptotermes formosanus*
Treatment quantity: 200 mg/ml²





Drill/treat hollow blocks

Utility pipe treatment

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Treatment Applications
Wazary® 10FL should be shaken before use

Pre-construction Treatment
For floor slabs porch floors and entrance platforms, apply diluted Wazary® 10FL at the rate of 4 litres per square metre or 7 litres per square metre if fill is washed gravel or other coarse material. On hollow block foundations, or voids in masonry, apply solution at the rate of 7 litres per three linear meters. In crawl spaces, apply the solution at the rate of 5 litres per linear meter per 30cm of depth from grade to bottom of foundation. Apply the solution on both sides of the foundation with special attention around pipes and piers.

Post-construction Treatment
Apply the solution at the rate of 5 litres per linear metre to trenches dug to the base of the foundation of the building being treated, or via drill holes spaced at 30cm intervals in flooring slabs. Excavated soil should be treated and used as a backfill as well as the soil under and around porches. To avoid exposure of treated soil to direct sunlight, exposed areas may be covered with a thin layer of untreated soil.

Remedial and Spot Treatments
If there is evidence of termite re-infestation after the initial treatment resulting from disruption of the chemical barrier that can arise due to human activity such as excavation, construction and landscaping, or simply following an incomplete initial treatment, retreatment should be made in these areas in accordance with the application techniques described within the Post-construction section.

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