

(10/3/06)

EFFICACY REVIEW
VERIGARD (PXTS) BLEND D Wood Preservative; 75799-2

DATE: 10/03/06

DP BARCODE: D332226

DECISION: 369972

PEST: subterranean termites

CHEMICAL: Polyxylenol tetrasulfide.....53.9%
Sulfur.....13.0%

CHEMICAL NUMBER: Polyxylenol tetrasulfide.....006929
Sulfur.....077501

PURPOSE: Provide efficacy data to support the addition of subterranean termites on the label.

MRID: 46230204. Nicholas, D.; L. (2004) Field Stake Test of PXTS Treated Wood: Final Report. Project Number: E7/01. Unpublished study prepared by Mississippi State University. 31p.

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BACKGROUND:

Verigard (PXTS) Blend D is a wood preservative intended to protect wood from both insect attack and fungal decay. The directions for use state that Verigard Blend D can be applied by both pressurized (empty cell or full cell) and non-pressurized (painting or dipping) applications. The use sites and recommended application rates are below:

Table 1. Labeled Application Rates

| Use Sites | Application Rates |
|-----------------------|----------------------------|
| aquatic piling | 8.0 – 11.0 lbs pcf* |
| railroad ties | 1.0 – 1.5 pcf |
| utility poles | 1.5 – 3.0 pcf |

**pounds per cubic foot*

DATA REVIEW:

The following data review is comprised of explanations of materials and methods, and a summation of experimental results containing a table with reformatted data.

To support the addition of subterranean termites to the label, the registrant has submitted a field stake test in which stakes were impregnated with Verigard Blend D or the industry standard creosote. In addition, non-treated control stakes were included in the test to confirm termite pressure. All stakes were removed from the soil at specific intervals for up to 67 months, inspected for damage (see table below), and then returned to the soil. All experiments were conducted in Dorman, Mississippi (heavy clay soil) or Saucier, Mississippi (sandy-loam soil). Both experimental sites are considered to be areas with high subterranean termite pressure.

Table 2. Visual Scale for Termite Damage

| VISUAL GRADE | LEVEL OF TERMITE ATTACK |
|--------------|--|
| 10 | Sound. 1 to 2 nibbles permitted. |
| 9 | Attack up to 3% of cross section. |
| 8 | Attack from 3 – 10% of cross section. |
| 7* | Attack from 10 – 30% of cross section. |
| 6 | Attack from 30 – 50% of cross section. |
| 4 | Attack from 50 – 75% of cross section. |
| 0 | Failure. |

* 7 or below denotes failure

Results:

Table 3. Termite Damage After 67 Month Inspection

| Retention (pcf.) | Visual Scale | |
|------------------|----------------------|-----------------------|
| | Dorman, MS 67 months | Saucier, MS 67 months |
| 0.67 | 5.8 | 2.3 |
| 1.4 | 7.9 | 8.0 |
| 2.7 | 9.7 | 9.1 |
| 4.0 | 10 | 9.9 |
| 5.7 | 10 | 10 |

After 67 months the visual rating scale for termite damage in Dorman, Mississippi was 5.8, 7.9, 9.7, 10, and 10 for retentions 0.67, 1.4, 2.7, 4.0, and 5.7 pcf respectively. The visual rating scale for termite damage in Saucier, Mississippi after 67 months was 2.3, 8.0, 9.1, 9.9, and 10 for retentions 0.67, 1.4, 2.7, 4.0, and 5.7 pcf respectively. The controls for both failed within the first year.

RECOMMENDATIONS:

The submitted data do not support the addition of subterranean termites to the Verigard Blend D label. The following recommendations apply:

1. The visual rating scale used to rate the level of termite damage within this study is not the method found acceptable by the Agency. Currently, the Agency is defining a failure as any presence of subterranean termites on the wood. The highest level (10) used within the visual rating scale for this study allowed 1 to 2 nibbles and is considered sound wood, however by Agency standards this is a failure. To have subterranean termites added to the label, additional data must be submitted using the presence or absence of termites as the basis for failure.
2. Experiments were only conducted using wood treated with Verigard Blend D via pressurized application. However, the label clearly states that wood products can be treated by both pressurized and non-pressurized applications. Experiments must also be conducted using wood treated with the test product via non-pressurized application (painting or dipping).
3. This submission only contained data from Dorman, MS and Saucier, MS. All future submissions must include data from at least three geographically separated areas which provide year round termite pressure.
4. At a future date, if subterranean termites are added to the label, the following disclaimer must be added:
“Not for use as a termite pretreatment for structural protection.”