

EFFICACY REVIEW
by Mark Suarez, Entomologist - IB

Mark E. S.
11 August 2005

DATE: 11 August 2005

EPA REG. NUMBER: 7969-209
7969-210

PRODUCT NAME: Termidor 80 EG [7969-209]
Termidor SC [7969-210]

REGISTRANT: BASF

RM: Richard Gebken, RM10
REVIEWER: Ann Sibold

DECISION: 354588 [7969-209]
354567 [7969-210]

DP BARCODE: 315429 [7969-209]
320054
315411 [7969-210]
320055

ACTION: R34; Non-Fast Track

ACTIVE INGREDIENT(S): [7969-209]
129121, Fipronil.....80.0%
[7969-210]
129121, Fipronil.....9.1%

TYPE: Soil Applied Liquid Termiticide

OPPTS GUIDELINE(S): 810.1000
810.3000
810.3600

MRID: 46496401

GLP ?: No, US Forest Service Termiticide Testing

SITE(S): Pre and Post-construction Termite
Treatments

PEST(S): Subterranean Termites.

STUDY SUMMARY:

The five year in-ground termiticide data submitted by BASF, collected by the US Forest Service, corroborate earlier data submitted to the Agency and further support the inclusion of pre-construction treatments on the product label. A single product "failure" was observed. This was a penetration in the ground board test resulting in light damage and penetration in a single Mississippi plot. This plot was treated at less than the label rate (0.03%), so the failure is not particularly troubling when considering the lowest label application concentration is 0.06%.

In accordance with PR Notice 96-7, ASPCRO has provided comments on the submitted labels. These comments are maintained in the regulatory files.

ENTOMOLOGIST'S COMMENTS AND RECOMMENDATIONS:

The registrant has requested an amendment of the product labels for the purpose of clarifying specific directive label language.

The requested label changes are identified as follows:

A. Termidor 80 WG [EPA Reg.# 7969-209]

1. Under the product name, "For sale to, use and storage only by individuals/firms licensed or registered by the state to apply termiticide and/or general pest control products.
2. Under "General Precautions", "Do not apply finished dilution of Termidor SC until all heating/air conditioning ducts, air vents,..." In the direction, "dilution" replaces "solution".
3. Under "Pre-Construction Treatment, General" "...Effective pre-construction termite control is achieved by establishing complete horizontal treated zones or complete vertical treated zones using 0.06%, 0.09%, or 0.125% Termidor 80 WG. *A combination of both complete vertical and horizontal zones using 0.06%, 0.09%, or 0.125% Termidor 80WG may also be used.*" Text in italics above was added to the end of the first paragraph.
4. Under "Pre-Construction Treatment, Concrete Slab..., Vertical Treated Zones", "...trenching alone around the slab..." was modified to read "...trenching alone along the slab...".
5. Under "Pre-Construction Treatment, Hollow Block Foundations/Voids" the directions were modified to read: "Hollow block foundations or voids in masonry resting atop the footing may be treated in order to create a continuous treatment zone in the area to be treated. Applicators may drill and treat into voids of masonry elements if not openly accessible." The original directions read, "Drill and treat voids in multiple masonry elements of the structure extending from the structure to the soil in order to create a continuous treatment zone in the area to be treated."

6. Under "Pre-Construction Treatment, Hollow Block Foundations/Voids", "may" has been substituted for "must" in "When using this treatment, access holes may be drilled below the sill plate..."
7. Under "Post-Construction Conventional Structural Termite Treatment, structures with French Drains and Sump Pumps" "french Drain" corrected to read "French drain".
8. Under "Directions for Use: Carpenter ants and nuisance ant control..." the following language was omitted from the amended label:
 "It is also necessary to remove or prune away all shrubbery, bushes, tree branches (dead or alive) touching the structure. This vegetation touching the structure offers a route of entry for ants into the structure and method for the ants to continue to inhabit the structure without coming in contact with the treatment."
9. Throughout the label, underlining has been removed from the statement "BEFORE TREATMENT: Turn off the air circulation system of the structure until application has been completed and all Termidor 80 WG has been absorbed by the soil."

B. Termidor SC [EPA Reg.# 7969-210]

1. Under the product name, "For sale to, use and storage only by individuals/firms licensed or registered by the state to apply termiticide and/or general pest control products."
2. Under "General Precautions", "Do not apply finished dilution of Termidor SC until all heating/air conditioning ducts, air vents,..." In the direction "dilution" replaces "solution".
3. Under "General Information", "water based suspension" replaces "water soluble".
4. Under "General Information, Mixing Instructions" ...until Termidor SC in the tank has dissolved completely" was replaced with "...until Termidor SC in the tank has dispersed completely".
5. Under Pre-Construction Treatment, General "...Effective pre-construction termite control is achieved by establishing complete horizontal treated zones or complete vertical treated zones using 0.06%, 0.09%, or 0.125% Termidor 80 WG. *A combination of both complete vertical and horizontal zones using 0.06%, 0.09%, or 0.125% Termidor 80WG may also be used.*" Text in italics above was added to the end of the first paragraph.

6. Under "Pre-Construction Treatment, Concrete Slab..., Vertical Treated Zones", "trenching alone around the slab" was modified to read "trenching alone along the slab".
7. Under "Pre-Construction Treatment, Hollow Block Foundations/Voids" the directions were modified to read: "Hollow block foundations or voids in masonry resting atop the footing may be treated in order to create a continuous treatment zone in the area to be treated. Applicators may drill and treat into voids of masonry elements if not openly accessible." The original directions read, "Drill and treat voids in multiple masonry elements of the structure extending from the structure to the soil in order to create a continuous treatment zone in the area to be treated."
8. Under "Pre-Construction Treatment, Hollow Block Foundations/Voids", "may" has been substituted for "must" in "When using this treatment, access holes may be drilled below the sill plate..."
9. Under "Post-Construction Conventional Structural Termite Treatment, structures with French Drains and Sump Pumps" "french Drain" corrected to read "French drain".
10. Under Post-Construction Exterior Perimeter...Treatment, A.4 Garages", the heading "A4." is corrected to read "A.4".
11. Under "Directions for Use: Carpenter ants and nuisance ant control..." the following language was omitted from the amended label:
 "It is also necessary to remove or prune away all shrubbery, bushes, tree branches (dead or alive) touching the structure. This vegetation touching the structure offers a route of entry for ants into the structure and method for the ants to continue to inhabit the structure without coming in contact with the treatment.
12. Throughout the label, underlining has been removed from the statement "BEFORE TREATMENT: Turn off the air circulation system of the structure until application has been completed and all Termidor 80 WG has been absorbed by the soil."

Recommendations:

The acceptability of the label modifications is addressed below:

A. Termidor 80 WG [EPA Reg.# 7969-209]

1. Under the product name, "For sale to, use and storage only by individuals/firms licensed or registered by the state to apply termiticide and/or general pest control products."
 - This modification is acceptable.

2. Under "General Precautions", "Do not apply finished dilution of Termidor SC until all heating/air conditioning ducts, air vents,..." In the direction "dilution" replaces "solution".
 - This modification is acceptable.
3. Under Pre-Construction Treatment, General "...Effective pre-construction termite control is achieved by establishing complete horizontal treated zones or complete vertical treated zones using 0.06%, 0.09%, or 0.125% Termidor 80 WG. *A combination of both complete vertical and horizontal zones using 0.06%, 0.09%, or 0.125% Termidor 80WG may also be used.*" Text in italics above was added to the end of the first paragraph.
 - This change is NOT acceptable, retain the current label language. Alternatively, "...complete horizontal treated zones or complete vertical treated zones..." may be replaced with "...a complete horizontal and vertical treated zone..."
4. Under "Pre-Construction Treatment, Concrete Slab..., Vertical Treated Zones", "...trenching alone around the slab..." was modified to read "...trenching alone along the slab...".
 - This modification is acceptable. This modification improves consistency within the label and with language in PR Notice 96-7.
 - In addition, under "Basement Structures, Exterior Perimeter" in the first paragraph change "...trenching around the foundation" to "trenching along the foundation"
5. Under "Pre-Construction Treatment, Hollow Block Foundations/Voids" the directions were modified to read: "Hollow block foundations or voids in masonry resting atop the footing may be treated in order to create a continuous treatment zone in the area to be treated. Applicators may drill and treat into voids of masonry elements if not openly accessible." The original directions read, "Drill and treat voids in multiple masonry elements of the structure extending from the structure to the soil in order to create a continuous treatment zone in the area to be treated."
 - This change is acceptable.
6. Under "Pre-Construction Treatment, Hollow Block Foundations/Voids", "may" has been substituted for "must" in "When using this treatment, access holes may be drilled below the sill plate..."
 - This change is acceptable.
7. Under "Post-Construction Conventional Structural Termite Treatment, structures with French Drains and Sump Pumps" "French Drain" corrected to read "French drain".
 - This modification is acceptable.

8. Under "Directions for Use: Carpenter ants and nuisance ant control..." the following language was omitted from the amended label:

"It is also necessary to remove or prune away all shrubbery, bushes, tree branches (dead or alive) touching the structure. This vegetation touching the structure offers a route of entry for ants into the structure and method for the ants to continue to inhabit the structure without coming in contact with the treatment.

 - The omitted text should be retained. It provides the applicator with important information.
9. Throughout the label, underlining has been removed from the statement "BEFORE TREATMENT: Turn off the air circulation system of the structure until application has been completed and all Termidor 80 WG has been absorbed by the soil."
 - Retain the originally approved underlining. This places additional emphasis on this important direction.

B. Termidor SC [EPA Reg.# 7969-210]

1. Under the Product Name, "For sale to, use and storage only by individuals/firms licensed or registered by the state to apply termiticide and/or general pest control products."
 - This modification is acceptable.
2. Under "General Precautions", "Do not apply finished dilution of Termidor SC until all heating/air conditioning ducts, air vents,..." In the direction "dilution" replaces "solution".
 - This modification is acceptable. A solution is a homogeneous mixture of two or more substances; a solution that has been diluted is a dilution.
3. Under "General Information", "water based suspension" replaces "water soluble".
 - This modification is acceptable, if the formulation is actually solid particles that remain distributed within the water, without settling. If it goes into solution, retain water soluble.
4. Under "General Information, Mixing Instructions" "...until Termidor SC in the tank has dissolved completely" was replaced with "...until Termidor SC in the tank has dispersed completely".
 - This modification is acceptable, if the formulation is a suspension. If the granules dissolve, retain water soluble.
5. Under Pre-Construction Treatment, General "...Effective pre-construction termite control is achieved by establishing complete horizontal treated zones or complete vertical treated zones using 0.06%, 0.09%, or 0.125% Termidor 80 WG. *A combination of both complete vertical and horizontal zones using*

0.06%, 0.09%, or 0.125% Termidor 80WG may also be used." Text in italics above was added to the end of the first paragraph.

- This change is NOT acceptable, retain the current label language. Alternatively, "complete horizontal treated zones or complete vertical treated zones" may be replaced with "a complete horizontal and vertical treated zone".
6. Under "Pre-Construction Treatment, Concrete Slab..., Vertical Treated Zones", "trenching alone around the slab" was modified to read "trenching alone along the slab".
 - This modification is acceptable. This modification improves consistency within the label and with language in PR Notice 96-7.
 - In addition, under "Basement Structures, Exterior Perimeter" in the first paragraph change "...trenching around the foundation" to "trenching along the foundation"
 7. Under "Pre-Construction Treatment, Hollow Block Foundations/Voids" the directions were modified to read: "Hollow block foundations or voids in masonry resting atop the footing may be treated in order to create a continuous treatment zone in the area to be treated. Applicators may drill and treat into voids of masonry elements if not openly accessible." The original directions read, "Drill and treat voids in multiple masonry elements of the structure extending from the structure to the soil in order to create a continuous treatment zone in the area to be treated."
 - This change is acceptable.
 8. Under "Pre-Construction Treatment, Hollow Block Foundations/Voids", "may" has been substituted for "must" in "When using this treatment, access holes may be drilled below the sill plate..."
 - This change is acceptable.
 9. Under "Post-Construction Conventional Structural Termite Treatment, structures with French Drains and Sump Pumps" "French Drain" corrected to read "French drain".
 - This change is acceptable.
 10. Under Post-Construction Exterior Perimeter...Treatment, A.4 Garages", the heading "A4." is corrected to read "A.4".
 - This change is acceptable.
 11. Under "Directions for Use: Carpenter ants and nuisance ant control..." the following language was omitted from the amended label:

"It is also necessary to remove or prune away all shrubbery, bushes, tree branches (dead or alive) touching the structure. This vegetation touching the structure offers a route of entry for ants into the structure and method

for the ants to continue to inhabit the structure without coming in contact with the treatment.

- The omitted text should be retained. It provides the applicator with important information.
12. Throughout the label, underlining has been removed from the statement "BEFORE TREATMENT: Turn off the air circulation system of the structure until application has been completed and all Termidor 80 WG has been absorbed by the soil."
- Retain the originally approved underlining. This places additional emphasis on this important direction.

Additional comments:

1. ASPCRO has recommended the following label modifications:

Termidor 80 WG when used as recommended in this label provides effective subterranean termite control based on greater than 5 years control in standardized field tests. In order to maximize the termiticide potency of **Termidor 80 WG**, it ~~should~~ must be applied in a manner to provide a continuous treated zone to prevent termites from attacking the wood to be protected. **Termidor 80 WG** ~~should~~ must only be applied by licensed technicians familiar with trenching, rodding, short rodding, subslab injection, low pressure banded surface applications, and foam delivery techniques. **Termidor 80 WG** is highly effective against a variety of subterranean termites including species of *Reticulitermes*, *Zootermopsis*, *Heterotermes*, and *Coptotermes*. While **Termidor 80 WG** is labeled for use at 0.06%, 0.09% and 0.125% finished dilution, the 0.06% finished dilution should be used for typical control situations. Where severe termite infestations occur, where problem soils occur or where difficult or problem construction types are encountered, it may be necessary to use 0.09% or 0.125% **Termidor 80 WG**.

- The registrant may replace should with must, as indicated, at their own discretion.
2. The first paragraph under "General Information" includes *Zootermopsis* as a genus of subterranean termites. This is not correct. *Zootermopsis* is a genus of dampwood termites in the family Termitidae. Applied in the manner directed, the product is not likely to provide any protection from *Zootermopsis* spp. As *Zootermopsis* is included on other soil applied termiticide labels, the removal of this genus is at the discretion of the registrant, at this time.