

241-392

12/21/2001

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U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Registration Division (H7505C)  
1200 Pennsylvania Avenue, N.W.  
Washington, D.C. 20460

EPA Reg. Number

Date of Issuance

241-392

DEC 21 2001

Term of Issuance: Conditional

Name of Pesticide Product:

PHANTOM termiticide-  
insecticide

NOTICE OF PESTICIDE:

Registration  
 Reregistration

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

BASF Corporation  
P.O. Box 13528  
Research Triangle Park, NC 27709-3528

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) and (B) since you agreed in your letter dated December 20, 2001 that:

1. You will submit and/or cite all data required for registration/ reregistration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.
2. You will submit production information (pounds or gallons produced) for this product for the fiscal year in which the use is conditionally registered, in accordance with FIFRA section 29. The fiscal year begins October 1 and ends September 30. The production information will be submitted to the Agency no later than November 15 following the end of the preceding fiscal year.

This information should be submitted to:

U.S. Environmental Protection Agency  
Office of Pesticide Programs (7504C)  
Document Processing Desk  
Ariel Rios Building  
1200 Pennsylvania Avenue, NW  
Washington, D.C. 20460

Signature of Approving Official:

Date:

DEC 21 2001

3. You will submit the listed data below, conducted in accordance with the 40 CFR Part 158 test guidelines referred to below:

a. <u>Title of Study</u>	<u>Guideline Reference Number</u>	<u>Date Due</u>
Product Performance Data for termites as outlined below	810.3600	August 1, 2005

Soil treated at least 5 years ago with chlorfenapyr at all treatment rates (including label rates) shall be collected from USDA-FS field plots. The following termite species (members from each of three recently field collected colonies) shall be tested against the treated soil: *Reticulitermes hesperus*, *R. flavipes*, *R. virginicus*, *R. tibialis*, *Heterotermes aureus*, and *Coptotermes formosanus*. These assays shall measure the LC<sub>90</sub>, LC<sub>95</sub>, LC<sub>100</sub> and the LT<sub>90</sub>, LT<sub>95</sub>, and LT<sub>100</sub> for each species tested. This testing will be done according to GLP as outlined in 40CFR Part 160.

You will submit protocols prior to conducting the above studies for Agency review and approval.

b. The EUP must be extended to December 31, 2004. You must submit five years of data for all 500 homes in the EUP by August 1, 2005.

c. Soil residue data shall be collected at the EUP homes and at the USDA-FS sites through December 31, 2004. These data shall be submitted to EPA by August 1, 2005.

4. You will make the following label changes before you release the product for shipment:

a. Add the phrase "EPA Registration No. 241-392".

b. The Environmental Hazards statements must be revised as follows:

This pesticide is toxic to aquatic organisms, birds and wildlife. Do not apply directly to water or to areas where surface water is present or intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or when disposing of equipment washwaters or rinsate.

#### Ground Water Advisory

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Application around a cistern or well may cause contamination of drinking water or groundwater.

c. In the section entitled "General Precautions for Termiticide Applications" on page 4, add the term ductwork after the words "air conditioning" in the third paragraph.

d. In the section entitled "General Information" under the directions for use on page 5, add the word "and" after (*C. formosanus*) and before *Heterotermes* spp.

e. On page 6 in the paragraph entitled "For mixing large volumes of finished solution" insert a space between "a" and "0.25%". Add the word "water" following "of" in the next to last sentence.

f. On page 7, add the following to the section on "in-line injection" "Apply the specified volume of Phantom dilution and active ingredient as set forth in the directions for use on this label."

g. On page 11, Add: "Apply Phantom finished solution at the rate of 2 gallons per square foot."

h. On page 12, wall voids directives should state a dry foam expansion ratio of 20:1 or greater.

i. On page 14, change the title "Structures with Adjacent Wells/Cisterns" to "Structures with Adjacent Wells/Cisterns and/or Other Bodies of Water."

j. On page 14, add a fourth bullet to read: "Do not apply to drainage systems such as sumps, french drains, leach beds, or other effluent discharge systems." This bullet can also be added to the "General Precautions for Termiticide Applications" on page 4.

k. On page 15, delete the sentence "Repeat treatment as necessary to maintain adequate control" from the section entitled "Above ground Termite Infestations". Insert "Repeat, if needed, every 4 weeks or more."

l. On page 15, change in houses, apartments ..." to "Inside houses, apartments...".

m. Move the general precautions listed on page 17 to page 16 under General Information.

Edit the General Precautions as follows:

Delete: "Do not use in the edible product areas of USDA Inspected Meat or Poultry Plants."

Delete: "Clean with soap and rinse with fresh water any food-handling equipment or surface areas that are exposed during a spot application."

Delete: "Do not use in food/feed areas of food handling establishments."

Replace with the following:

"Do not use in food/feed areas of food/feed handling establishments, restaurants, or other areas where food is commercially prepared or processed. Remove food from food serving areas of commercial establishments prior to treatment. Wash all exposed food serving/handling surfaces thoroughly with potable water following treatment and before use. Serving areas are areas where prepared foods are served such as dining rooms, but excluding areas where foods may be prepared or held. In homes, remove all food and cooking utensils. Cover all food handling surfaces and wash thoroughly after treatment and before use. Not for use in Federally Inspected Meat and Poultry Plants."

"Do not allow spray to contact food, foodstuffs, food contacting surfaces, food utensils, or water supplies."

5. The basic Confidential Statement of Formula (CSF) dated December 20, 2001 is acceptable.

6. You will submit three (3) copies of your final printed labeling before releasing the product for shipment.

You should note that if you fail to satisfy any of the conditions imposed on this registration, e.g., you fail to submit the required data by the specified deadlines or the data submitted were not generated in accordance with applicable test guidelines, EPA may issue notice to cancel this use under FIFRA 6(e).

This registration will expire on December 31, 2005 if you do not comply with the conditions above.

A stamped copy of your product label is attached.

Sincerely,



Marion Johnson, Jr.  
Product Manager 10  
Registration Division (7505C)  
Insecticides Branch

Enclosure

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PROPOSED LABEL

**PHANTOM<sup>®</sup> termiticide-insecticide**

For sale to, use and storage by individuals/firms licensed or registered by the state to apply termiticide and general pest control products. States may have more restrictive requirements regarding qualifications of persons using this product. Consult the structural pest control regulatory agency of your state prior to use of this product.

**ACTIVE INGREDIENT:**

Chlorfenapyr: 4-bromo-2-(4-chlorophenyl)-1-(ethoxymethyl)-  
5-(trifluoromethyl)-1H-pyrrole-3-carbonitrile ..... 21.45%

**INERT INGREDIENTS:** ..... 78.55%

**TOTAL:** ..... 100.00%

1 gallon contains 2.0 pounds of active ingredient

EPA Reg. No. 241-392  
U.S. Patent No. 5,010,098

EPA Est. No. 5905-GA-01

**ACCEPTED  
with COMMENTS  
in EPA Letter Dated:  
DEC 21 2001**  
*Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, for the pesticide  
registered under EPA Reg. No.  
241-392*

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION / PRECAUCION**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand this label, find someone to explain it to you in detail).

**See Next Page for Additional Precautionary Statements**

Net Contents:  
®Registered trademark of BASF

Product Code XXX

**BASF Corporation**  
26 Davis Drive  
Research Triangle Park, NC 27709



PROPOSED LABEL

FIRST AID

- If swallowed:** Call a poison control center or doctor for further treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
- If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.
- If inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
- If in eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**In case of an emergency endangering life or property involving this product, call day or night 800-832-HELP.**

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS (AND DOMESTIC ANIMALS)

CAUTION

Harmful if swallowed, inhaled or absorbed through the skin. Causes moderate eye irritation. Do not get in eyes, on skin, or on clothing. Avoid breathing vapors or spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

Personal Protective Equipment (PPE):

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA chemical resistance category selection chart.

PROPOSED LABEL

All pesticide handlers (Mixers, loaders and applicators) must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, butyl rubber or nitrile rubber neoprene or polyvinyl chloride (PVC) or viton (> 14 mils)
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

In addition, all termiticide handlers must wear a dust/mist filtering respirator (MSHA/NIOSH Approved Number Prefix TC-21C) or a NIOSH approved respirator with any N, R, P or HE filter, when working in a non-ventilated space, including but not limited to crawl-spaces and basements; all termiticide handlers must wear protective eyewear when working in a non-ventilated space when applying termiticide by rodding or sub-slab injection.

**User Safety Recommendations:**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to aquatic organisms, birds and wildlife. Do not apply directly to water or to areas where surface water is present or intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or when disposing of equipment washwaters or rinsate.

Application around a cistern or well may cause contamination of drinking water or groundwater.

**PHYSICAL OR CHEMICAL HAZARDS**

Do not apply this product around electrical equipment due to the possibility of shock hazard.

**STORAGE AND DISPOSAL**

Do not contaminate water, food or feed by storage or disposal.

**Storage:** Store in original container in secure dry storage area. Do not store below 32° degrees. Do not store in direct sunlight or heat.

In case of spills, avoid contact and isolate area. To confine spills, dike surrounding area or absorb with sand, cat litter, commercial clay or gel absorbents.

**Pesticide disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container disposal:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, by incineration or, if allowed by State and local authorities by burning. If burned, stay out of smoke.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. This label must be in the possession of the user at the time of pesticide application.

#### GENERAL PRECAUTIONS FOR TERMITICIDE APPLICATIONS

When treating adjacent to an existing structure, the applicator must check the area to be treated, and immediately adjacent areas of the structure for visible and accessible cracks and holes to prevent any leaks or significant exposures to persons occupying the structure. People present or residing in the structure during application must be advised to remove their pets and themselves from the structure if they see any signs of leakage. After application, the applicator is required to check for leaks. All leaks resulting in the deposition of termiticide in locations other than those prescribed on this label must be cleaned up prior to leaving the application site. Do not allow people or pets to contact contaminated areas or to reoccupy contaminated areas of the structure until the clean up is completed.

All holes drilled in concrete slabs in commonly occupied areas into which termiticide has been applied must be plugged. Plugs must be of a non-cellulose material or covered by an impervious, non-cellulose material.

Do not make treatment beneath slabs or similar floorings until the locations of heat or air conditioning vents, water and sewer lines, and electrical lines/conduits are known and identified. Use extreme caution to avoid puncturing and contaminating these utilities.

When treating crawl spaces or plenum-type structures, turn off the air circulation system of the structure until application has been completed and all PHANTOM termiticide-insecticide has been absorbed by the soil.

Do not contaminate wells or cisterns. Consult the appropriate section of this label as well as state/local specifications for recommended distances of wells from treated area, or if such



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<p>regulations do not exist, refer to Federal Housing Administration (H.U.D.) Specifications for guidance.</p> <p>Use anti-backflow equipment on filling hoses. Do not contaminate public or private water supplies. Consult State, Federal, or local authorities for information regarding the approved treatment practices for areas in close proximity to potable water supplies.</p> <p>Do not plant, for the purpose of consumption, edible plants into the treated areas of soil.</p>
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**FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR PEST CONTROL.**

**USE DIRECTIONS FOR SUBTERRANEAN TERMITE CONTROL**

**GENERAL INFORMATION**

**In order to maximize the termite potency of PHANTOM termiticide-insecticide in post construction treatments, it should be applied in a manner to provide a continuous chemical barrier to prevent termites from attacking the wood to be protected. This product shall be used as a post-construction treatment only. Application as a pre-construction treatment is not permitted PHANTOM termiticide-insecticide is effective on *Reticulitermes spp.* (*R. flavipes*, *R. virginicus*, *R. hageni*, *R. tibialis*, *R. hesperus*), *Coptotermes spp.* (*C. formosanus*), *Heterotermes spp.* (*H. aureus*)).**

The objective of soil treatments with **PHANTOM termiticide-insecticide** is to establish a treated barrier (horizontal and/or vertical as needed) between the wood and other cellulose material in the structure and the termite population(s) in the soil. Treatment standards for subterranean termite control may vary due to state/local regulations, treatment procedures, soil types, construction practices and other factors. Follow all federal, state, and local regulations and treatment standards for protection of a structure from subterranean termites. Observe industry good management practices.

Use a 0.125% dilution for typical treatment situations. Use a 0.25% dilution when severe infestations occur.

Where aerial infestations or above-ground nests are detected within the structure, supplemental treatments to control termites in the structure (see Above Ground Termite Infestations section of this label), use of termite baits, and/or structural repairs to deprive the termites of a moisture source may be needed.

For advice concerning current control practices, consult resources in structural pest control, state cooperative extension or regulatory agencies.

**MIXING DIRECTIONS****Dilution Table:**

Desired Dilution	Amount of PHANTOM to make 100 gallons of dilution		Amount of PHANTOM to make 1 gallon of dilution	
0.25%	1.2 gal	4.4 L	1.5 fl. oz.	44 mL
0.125%	75 fl.oz.	2.2 L	0.75 fl. oz.	22 mL

**For mixing small volumes of finished solution:**

For termite control operations requiring smaller volumes use 1.5 fl. oz. of PHANTOM per gallon of water to achieve a 0.25% concentration; use 0.75 fl. oz. per gallon of water to achieve a 0.125% concentration. Mix the termiticide use dilution in the following manner:

1. Fill hand-pressurized or power-operated application equipment with 1/2 to 3/4 of the required amount of water. Filling hose must be equipped with an anti-backflow device.
2. Measure the required amount of PHANTOM.
3. Add PHANTOM to the sprayer and fill with the remainder of the water.
4. Close sprayer and agitate to insure proper suspension.
5. Re-agitate sprayer before use if spraying is interrupted.

**For mixing large volumes of finished solution:**

For dilution quantities greater than one gallon the amount of PHANTOM to add may be determined by multiplying the quantity of PHANTOM specified for a particular dilution rate for a one gallon dilution by the total dilution size. For example to make a 50 gallon dilution of a 0.125% dilution, multiply 50 x 0.75 fl. oz. = 37.5 fl. oz. Then mix 37.5 fl. oz. of PHANTOM to enough water to make a total 50 gallon dilution. For termite control operations requiring 100 gallons of finished solution prepare a 0.25% dilution by mixing 1.2 gallons of PHANTOM with 98.8 gallons of water, or prepare a 0.125% dilution by mixing 75 fluid ounces (fl. oz.) of PHANTOM with 99.4 gallons of. Mix the termiticide use dilution in the following manner:

1. Fill the tank with water until it is 1/4 to 1/3 full. Filling hose must be equipped with an anti-backflow device.
2. Start pump to begin by-pass agitation and place end of treating tool in tank to allow circulation through hose.
3. Add the appropriate amount of **PHANTOM** (see Dilution Table above).
4. Add remaining amount of water to the tank.
5. Let pump run and allow recirculation through the hose for 2 or 3 minutes.

**Application Volume:** To provide maximum control of and protection against termite infestations, apply the specified volume of **PHANTOM** dilution and active ingredient as set forth in the directions for use. If soil will not accept the labeled application volume, the volume may be reduced provided there is a corresponding increase in concentration so that the amount of active ingredient applied to the soil remains the same. **Note:** Large reductions of application volume reduce the ability to obtain a continuous treated barrier. Variance is allowed when volume and concentration are consistent with label directed rates and a continuous barrier can still be achieved. At reduced application volume; it may be necessary for the applicator to drill holes closer than 12 inches apart to create a continuous barrier. Do not treat soil that is water saturated or frozen or in any conditions where run-off or movement from the treatment area (site) is likely to occur. Do not treat while precipitation is occurring.

**IN-LINE-INJECTION:** For proper use of **PHANTOM** with in-line injection equipment refer to the use instructions for the injection equipment.

## **POST-CONSTRUCTION SOIL TREATMENT**

### **General Directions for Soil Treatments:**

Do not make treatment beneath slabs or similar floorings until the locations of heat or air conditioning vents, water and sewer lines, and electrical lines/conduits are known and identified. Use extreme caution to avoid puncturing and contaminating these utilities.

For applications made after the final grade is installed, the applicator must trench and rod into the trench or trench along the foundation and around pillars and other foundation elements, at a rate prescribed from grade to the top of the footing. When footing is more than four (4) feet below grade, the applicator must trench and rod into the trench or trench along the foundation walls at the rate prescribed to a minimum depth of four (4) feet. The actual depth of treatment will vary depending on soil type, degree of compaction, and location of termite activity. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing; dig a trench alongside the footing taking care not to undermine the footing. However, in no case should a structure be treated below the footing.

**NOTE:** Read and follow the mixing and use directions section of the label if situations are encountered where the soil will not accept the full application volume.

**Accessible Crawl Spaces:**

**BEFORE TREATMENT:** Turn off the air circulation system of the structure until application has been completed and all **PHANTOM** termiticide-insecticide has been absorbed by the soil.

For crawl spaces, apply vertical termiticide barriers at the rate of 4 gallons of dilution per 10 linear feet per foot of depth from grade to the top of the footing, or if the footing is more than 4 feet below grade, to a minimum depth of 4 feet. Apply by trenching and rodding into the trench, or trenching. Treat both sides of the foundation and around all piers and pipes. Where physical obstructions, such as concrete walkways adjacent to foundation elements, prevent trenching, treatment may be made by rodding alone. When soil type and/or conditions make trenching prohibitive, rodding may be used. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. Read and follow mixing and use directions on this label if situations are encountered where the soil will not accept the full application volume.

1. Rod holes and trenches must not extend below the bottom of the footing.
2. Rod holes must be spaced so as to achieve a continuous chemical barrier but in no case more than 12 inches apart.
3. Trenches must be a minimum of 6 inches deep or to the bottom of the footing, whichever is less, and need not be wider than 6 inches. When trenching in sloping (tiered) soil, the trench must be stepped to ensure adequate distribution and to prevent termiticide from running off. The **PHANTOM** solution must be mixed with the soil as it is replaced in the trench.
4. When unsupported termite tubes are present, mechanically destroy each tube and make a horizontal treatment by applying approximately 1 gallon of dilution per square foot, treating an area of no more than 18 inches in diameter where the tubes emerge from the soil.

**Inaccessible Crawl Spaces:**

**BEFORE TREATMENT:** Turn off the air circulation system of the structure until application has been completed and all **PHANTOM** termiticide-insecticide has been absorbed by the soil.

For inaccessible interior areas, such as areas where clearance between floor joists and ground surfaces is insufficient to allow operator access, excavate, if possible, and treat according to the instructions for Accessible Crawl Spaces (above). Otherwise, apply one, or a combination of the following two methods.

1. To establish a horizontal treated barrier, apply dilution to the soil surface at a rate of 1 gallon of dilution per 10 square feet using low pressure (less than 25 p.s.i. at the treating tool when valve is open) and a coarse application nozzle (e.g., Delavan Type RD Raindrop, RD-7 or larger, or Spraying Systems Co. 8010LP TeeJet or comparable nozzle). For an area that cannot be reached with the application wand, use one or more extension rods to make the application to the soil. Do not broadcast or power spray with higher pressures.
2. To establish a horizontal treated barrier, drill through the foundation wall or through the floor above and treat the soil perimeter at a rate of 1 gallon of dilution per 10 square feet. Drill spacing must be at intervals not to exceed 16 inches; many states have smaller intervals so check state regulations which may apply.

**Slab-on-Ground (Including Monolithic, Floating and Supported Concrete Slabs):**

**EXTERIOR PERIMETER** - Apply by trenching and rodding into the trench or trenching around the foundation at the rate of 4 gallons finished solution (or dilution) per 10 linear feet per foot of depth, or if the footing is more than 4 feet below grade, to a depth of 4 feet. Trenches must be a minimum of 6 inches deep or to the bottom of the footing and need not be wider than 6 inches. The finished solution (or dilution) should be mixed with the soil as it is replaced in the trench. Rod holes must be spaced so as to achieve a continuous chemical barrier but in no case more than 12 inches. However, in no case should the structure be treated below the footing.

**SUB-SLAB INJECTION** - Sub-slab injection treatments can be made from inside the structure or in cases where by drilling through the foundation from the outside as directed below. Prior to making any treatments, locate all heating/air conditioning ducts, vents, water/sewer lines, and electrical lines/conduit.

- Vertical Drilling/Injection - To treat under the slab drill vertically through the slab along the interior perimeter of the foundation including the garage. Drill holes along all concrete expansion joints, cracks, plumbing, and utility services penetrating the slab. It may be necessary to drill holes along one side of the slab adjacent to an interior partition wall if there is clear evidence of termite activity or damage in the wall. All drill holes through the slab should be spaced so as to achieve a continuous chemical barrier but in no case be more than 12 inches apart. Inject PHANTOM finished solution (or dilution) into the drilled holes at the rate of 4 gallons per 10 linear feet per foot of depth. For best results, application should be made with a lateral dispersal nozzle. All holes in commonly occupied areas into which material has been applied must be plugged. Plugs must be of a non-cellulose material or covered by an impervious, non-cellulose material.

A horizontal treated barrier can also be established beneath the slab using the above technique as a grid pattern injection. Otherwise, use the methods described below.

- Horizontal Drilling/Rodding/Sub-slab Injection From the Exterior of the Foundation - This technique should be used to treat underneath the slab only when floors or interior design do not allow for vertical drilling. Care must be exercised not to rod into heating ducts, water/sewer lines, and electrical lines/conduits. Horizontal short-rodding practices can be used to establish a continuous chemical barrier along the inside perimeter of the foundation. Holes should be drilled from outside the foundation at an angle which allows a finished solution (or dilution) of PHANTOM to be deposited below heating ducts, water/sewer lines, and electrical conduits if present. Horizontal long rodding practices may only be employed to treat areas underneath the slab that are not accessible by vertical rodding or horizontal short rodding. Long rods exceeding 20 feet should not be used. For all horizontal rodding applications all drill holes through the foundation should be spaced so as to achieve a continuous chemical barrier but in no case be more than 12 inches apart. Inject solution (or dilution) containing PHANTOM into the drilled holes at the rate of 4 gallons per 10 linear feet per foot of depth. For best results, make applications with a lateral dispersal nozzle. All holes must be plugged. Plugs must be of a non-cellulose material or covered by an impervious, non-cellulose material.

**Bath Traps:** Treat exposed soil or soil covered with tar or a similar type sealant beneath and around plumbing and/or drain pipe entry areas. An access door or inspection vent should be cut and installed, if not already present. After inspection and removal of any wood or cellulose debris, the soil can be treated by rodding or drenching the soil with a 0.125% or 0.25% solution of PHANTOM.

**Buildings on Soil:** In treating areas under wooden floors or other materials, with the exception of concrete or masonry, laying directly on or in close proximity to the soil (such as gymnasium floors, finished family rooms or similar areas converted to living areas where joists are placed on the ground and flooring placed on top), the floor should be drilled on a squared-grid pattern, 12-18 inches on center, and the dilution containing PHANTOM injected 4 to 6 inches beneath the soil surface. Apply at the rate of 1 gallon dilution per 10 square feet to provide a uniform treated barrier. Where there is exposed soil beneath and around plumbing/waste pipe entrances, thoroughly treat using 1 gallon of dilution per 10 square feet to provide a uniform treated barrier.

**Basements - Outside Perimeter:** Along the outside of the exterior walls, apply vertical treated barriers at a rate of 4 gallons of dilution per 10 linear feet per foot of depth from grade to the top of the footing, or if the footing is more than 4 feet below grade, to a minimum depth of 4 feet. Apply by trenching and rodding into the trench, or trenching. When rodding through a trench, dig a narrow trench about 6 inches wide and at least 6 inches deep. Use a low pressure spray to treat soil which will be replaced into the trench after rodding; mix dilution with the soil as it is being replaced into the trench. When trenching in sloping (tiered) soil, the trench must be stepped to ensure adequate distribution and to prevent the dilution from running out of the trench.

**Basements - Inside Perimeter:** If a well or cistern is present, refer to Wells/Cisterns section of this label. To treat under the basement floor slab, drill vertically through the slab along the interior perimeter of the foundation. Drill holes along all concrete expansion joints, cracks, plumbing, and utility services penetrating the slab. Drill holes along both sides of partition foundation walls, and around piers. It may be necessary to drill holes along one side of the slab adjacent to a non-foundation interior partition wall if there is clear evidence of termite activity in the wall. All drill holes through the slab should be spaced so as to achieve a continuous chemical barrier but in no case be more than 12 inches apart. Inject finished solution (or dilution) containing PHANTOM into the drilled holes at the rate of 4 gallons per 10 linear feet per foot of depth. For best results, application should be made with a lateral, dispersal nozzle. All holes in commonly occupied areas into which material has been applied must be plugged. Plugs must be of a non-cellulose material or covered by an impervious, non-cellulose material.

**Hollow Block Foundation or Voids:** 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 barrier in the area to be treated. Apply at the rate of 2 gallons of finished solution per 10 linear feet of footing using a nozzle pressure of 25 psi or less. When using this treatment, access holes must

PROPOSED LABEL

be drilled below the sill plate and should be as close as possible to the footing as practical. Treatment of voids or block or rubble foundation walls must be closely examined. Applicators must inspect areas of possible runoff as a precaution against application leakage in the treated areas. Some areas may not be treatable or may require mechanical alteration prior to treatment.

All leaks resulting in the deposition of dilution containing PHANTOM in locations other than those prescribed on this label must be cleaned up prior to leaving the application site. Do not allow people or pets to contact contaminated areas or to reoccupy the contaminated areas of the structure until the clean up is completed.

Not for use in voids insulated with rigid foam.

**Foam Applications:**

**At least 75% of the gallons of the finished solution containing PHANTOM must be applied as a typical liquid treatment. The remaining 25% or less gallons is delivered to appropriate locations using a foam application. The total amount of product applied with the combination of foam and liquid finished solution should be equivalent to that of the application of liquid finished solution only.**

The following foaming agents have been tested with PHANTOM: PCO Foam, Pestifoam, and Termitafoam. Follow the manufacturer's recommendations.

Foam applications are generally a good supplement to liquid treatments in difficult areas, but may be used in difficult to access spot treatments. Construction practices, soil subsidence and others factors may create situations in which a continuous chemically treated barrier cannot be provided when using conventional liquid applications alone. When necessary, conventional treatments may be supplemented through the use of foam generating equipment or similar devices to provide a continuous treated barrier. Applications may be made behind veneers, piers, chimney bases, into rubble foundations, into block voids, or structural voids, wall voids, under slabs, stoops, porches, or to the soil in crawl spaces and other similar voids.

Foam applications to wall voids and stud walls must utilize dry foam only (20:1 expansion ratio).

Foam applications to soil such as treatment of filled porches or stoops, must be done with a wet foam only (5:1 expansion ratio or less).

**Foam Application use Directions:** Mix appropriate concentration of PHANTOM termiticide-insecticide in water and add the manufacturer's recommended quantity of foam agent to the PHANTOM solution (see table for foaming recommendations) Apply a sufficient volume of PHANTOM in foam alone or in combination with liquid solution to provide a continuous treated barrier at the recommended rate for specific application sites.

Mixing Table for PHANTOM Termiticide-Insecticide Foam				
Amount of	Gallons of	Foam Expansion	Finished Foam	Finished Foam



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PHANTOM	Water	Ration	(gallons)	(a.i.)
3.75 fl.oz.	1.0	5:1	5	0.125
7.5 fl.oz.	1.0	10:1	10	0.125
15.0 fl.oz.	1.0	20:1	20	0.125
7.5 fl.oz.	1.0	5:1	5	0.25
15.0 fl.oz.	1.0	10:1	10	0.25
30.0 fl.oz.	1.0	20:1	20	0.25
* Add the manufacturer's recommended quantity of foam agent to the PHANTOM termiticide-insecticide solution.				

**Plenums:**

**BEFORE TREATMENT:** Turn off the air circulation system of the structure until application has been completed and all of the dilution containing PHANTOM has been absorbed by the soil.

For plenum-type structures, apply the dilution at the rate of 4 gallons of dilution per 10 linear feet, per foot of depth of soil to provide a uniform treated barrier adjacent to both sides of foundation walls, supporting piers, plumbing and conduits. Create a vertical treated barrier by trenching and rodding into the trench or by trenching around the foundation; trench must be about 6 inches wide and at least 6 inches deep. Use a low pressure spray to treat soil which will be replaced into the trench after rodding; mix dilution with the soil as it is being replaced into the trench.

When conditions will not permit trenching or rodding, a surface application adjacent to interior foundation walls may be made, but the treated barrier shall not exceed a width of 18 inches, horizontally, from the foundation walls, piers, or pipes. The surface application should be made at a rate of 1 gallon of dilution per 10 square feet as a very coarse spray under low pressure (not to exceed 25 p.s.i. when measured at the treating tool when valve is on).

Follow the instructions below for interior treatment of plenum structures that used a sealed under-floor space to circulate heat and/or cooled air throughout the structure.

1. Remove the sealing fabric and anything on the sealing fabric to expose no more than 18 inches adjacent to all foundation structures, including foundation walls, interior piers, pipes, and any other structures with soil contact. Follow the instructions listed above for exterior and interior treatment of "Accessible Crawl Spaces".
2. After the finished solution containing PHANTOM has been absorbed by the soil, replace the sealing fabric and anything to be placed on the sealing fabric to its original, pre-treatment position.

**TREATMENT OF STRUCTURES WITH WELLS OR CISTERNS:**

**Do not contaminate wells or cisterns.**

## PROPOSED LABEL

**Structures with Wells/Cisterns Inside Foundations:** Do not apply PHANTOM within 5 feet of any well or cistern by rodding and/or trenching or by the backfill method. Treat soil within 5 to 10 feet of the well or cistern by the backfill method only. Treatment of soil adjacent to water pipes within 3 feet of grade should only be done by the backfill method only. Infested and/or damaged wood should be replaced or repaired.

**Treated Backfill Method:** Where treatment must be made in difficult situations, such as near wells, cisterns, along fieldstone or rubble walls, and around pipes and utility lines which lead to a well or pond, applications may be made in the following manner:

1. Trench and remove soil to be treated onto heavy plastic sheeting or similar material or into a wheel barrow.
2. Treat the soil at the rate of 4 gallons of dilution per 10 linear feet per foot of depth of the trench, or 1 gallon per 1 cubic foot of soil. Mix the dilution thoroughly into the soil taking care to prevent runoff or spillage.
3. After the treated soil has absorbed the dilution, replace the soil in the trench. Prior to using this technique near wells or cisterns, consult federal, state, county, or local agencies, including the state Wellhead Protection Program, for information regarding approved treatment practices in your area.

**Structures with Adjacent Wells/Cisterns:** Applicators must inspect all structures with nearby water sources such as wells, cisterns, surface ponds, streams, and other bodies of water and evaluate, at a minimum, the treatment recommendations listed below prior to making an application.

1. Treatment of soil adjacent to the water pipe(s) should be done according to the backfill method. Prior to treatment, if feasible, expose the water pipe(s) coming from the well to the structure, if the pipe(s) enter the structure within 3 feet of grade.
2. Prior to treatment applicators are advised to take precautions to limit risk of applying termiticide into subsurface drains that could empty into any bodies of water. These precautions include evaluating whether application of the termiticide to the top of the footer may result in contamination of the subsurface drain. Factors such as depth to the drain system and soil type and degree of compaction should be taken into account in determining the depth of treatment.
3. When appropriate (i.e., on the side of the structure closest to the water), the treated backfill method (described above) can be used to further minimize off-site movement of termiticide.

**Retreatments:** Subsequent to the initial treatment, retreatments for subterranean termites can only be performed if there is clear evidence of reinfestation, or disruption of the treated barrier due to construction, excavation, landscaping, and/or evidence of the breakdown of the termiticide treated barrier in the soil. Those vulnerable or reinfested areas may be retreated in accordance with application techniques described in this product's labeling. Retreatments may be made as either a spot or complete treatment. The timing and type of these retreatments will vary, depending on factors such as termite pressure, soil types, soil conditions and other factors which may reduce the effectiveness of the treated barrier. Annual retreatment of the structure is prohibited unless there is clear evidence of reinfestation or if disruption has occurred.

**Above Ground Termite Infestations:** PHANTOM also provides localized control of subterranean termites in their above ground galleries, workings or aerial nests within the structure. Apply a either a 0.125% or 0.25% dilution to voids or channels in damaged wooden members of a structure, or to other locations vulnerable to attack by termites. Locate existing openings, or drill the infested cavity, and inject dilution under low pressure using appropriate treatment tools with splashback guard. Plug treatment holes drilled in commonly occupied areas of structures. Inspect as needed. Repeat treatment as necessary to maintain adequate control.

## USE DIRECTIONS FOR GENERAL INDOOR PEST CONTROL

### GENERAL INFORMATION

**PHANTOM termiticide-insecticide** is intended for use by individuals/firms licensed or registered by the state to apply termiticide and general pest control products as a spot or crack and crevice spray for residual pest control. Permitted areas of use include, but are not limited to:

In houses, apartments or other residential structures, and non-food/feed handling areas of commercial, institutional and warehousing establishments, such as schools, groceries and supermarkets, restaurants and cafeterias, hotels and motels, hospitals and nursing homes, warehouses and industrial buildings, laboratories, zoos, pet shops, computer facilities, and sewers.

- Non-food/feed areas are areas such as garbage rooms, lavatories, floor drains (to sewers), entries, and vestibules, offices, locker rooms, machine rooms, boiler rooms, garages, mop closets and storage.
- Do not use in food/feed areas of food handling establishments.

**MIXING DIRECTIONS**

**Dilution Table:**

Desired Concentration	Amount of PHANTOM to make 1 gallon of dilution		Amount of PHANTOM to make 5 gallons of dilution	
	3.0 fl. oz.	88 mL	15.0 fl. oz.	440 mL
0.50%				

Mix the dilution in the following manner:

1. Fill hand-pressurized or power-operated application equipment with 1/2 to 3/4 of the required amount of water.
2. Measure the required amount of PHANTOM.
3. Add PHANTOM to the sprayer and fill with the remainder of the water.
4. Close sprayer and agitate to insure proper suspension.
5. Re-agitate sprayer before use if spraying is interrupted.

**GENERAL PEST CONTROL INDOORS**

Applications should be made to breeding areas, nesting sites, hiding places, runways, and other places where pests are found or likely to infest. For use with only low-pressure directed spray application equipment.

**GENERAL PRECAUTIONS FOR INDOOR PEST CONTROL**

DO NOT MAKE GENERAL SURFACE OR SPACE APPLICATIONS. This product is not intended for pantry pests in cupboards, cabinets or in containers.

Do not use in food/feed areas of food handling establishments.

Do not use in the edible product areas of USDA inspected meat or poultry plants.

Clean with soap and rinse with fresh water any food-handling equipment or surface areas that are exposed during a spot application.

Do not introduce this product into the air during application. Do not apply into heating and air conditioning vents or ducts.

Do not apply in occupied rooms.

Use only in well ventilated conditions.

Do not apply to aircraft cabins.

Do not allow for contact to treated areas until spray has dried. Allow treated surfaces to dry before replacing items.

Remove pets and cover or remove fish bowls prior to application.

Do not apply in patient rooms or in classrooms while occupied.

Do not apply water-based sprays where electrical short circuits could occur.

**Cockroaches:** PHANTOM is effective against American, Asian, brown-banded, German, Oriental, smokybrown, and other cockroach species.

Use a 0.5% dilution. Apply dilution as a coarse, low pressure spot or crack and crevice spray to areas where these pests normally inhabit or are likely to infest.

Limited spot treatments of PHANTOM dilution can be made to surfaces beneath cabinets, spaces between equipment or expansion joints, surfaces behind sinks, lockers, water pipes, cabinets, or other areas where cockroaches may hide. Reapply, if needed, every 4 weeks or more.

**Ants:** PHANTOM is highly effective against household and structure-invading ants, including the following species: acrobat ants, Argentine ants, carpenter ants, odorous house ants, pavement ants, Pharaoh's ant, pyramid ants, and other species.

Apply crack and crevice or spot treatments of a 0.5% dilution to areas of known or suspected ant activity. Where possible, apply PHANTOM directly to ant nest(s) or nesting site(s) or ant-infested wood or structural voids. Reapply, if needed, every 4 weeks or more.

#### DISCLAIMER

The label instructions for the use of this product reflect the opinion of experts based on research and field use. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the use of, or application of the product contrary to label instructions, all of which are beyond the control of BASF Corporation (BASF). All such risks shall be assumed by the user.

BASF shall not be responsible for losses or damages resulting from use of this product in any manner not set forth on this label. User assumes all risks associated with the use of this product in any manner not specifically set forth on this label.

BASF warrants only that the material contained herein conforms to the chemical description of the label and is reasonably fit for the use therein described when used in accordance with the directions for use, subject to the risks referred to above. BASF does not make or authorize any agent or representative to make any other warranties, express or implied, and expressly excludes and disclaims all implied warranties of merchantability or fitness for a particular purpose.

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