## 08/16/2005





U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Registration Division (7505C) 1200 Pennsylvania Ave., N.W. Washington, D.C. 20460 EPA Reg. Number:

Date of Issuance:

81824-5

AUG 1 6 2005

NOTICE OF PESTICIDE:

<u>x</u> Registration
Reregistration

(under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

Isopthor SC

Name and Address of Registrant (include ZIP Code):

Ensystex II, Inc. 2709 Breezewood Ave. Fayetteville, NC 28303

Note: Changes in labeling differing in substance from that accepted in commection 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) provided that you:

- 1. Submit and/or cite all data required for registration/ reregistration of your product when the Agency requires all registrants of similar products to submit data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.
  - 2. Submit the results of a one-year storage stability study under typical storage conditions.
  - 3. Make the labeling changes listed below before you release the product for shipment:
    - a. Add the phrase "EPA Registration No. 81824-5".
    - b. Based on the toxicity profile for this product, you may elect to delete the "If in eyes" advice section from the First Aid text.
    - c. In the Hazards to Humans and Domestic Animals section, you may delete "Causes moderate eye irritation.".

Signature of Approving Official:	Date:
	AUG 1 6 2005

EPA Reg. No. 81824-5 Page 2 of 2

- d. Delete use in the food/feed handling areas of food/feed handling establishments and limit use to the non-food/non-feed areas only. The source product used to formulate this product prohibits use in the food/feed areas of food/feed handling establishments.
- 4. Product using the twin neck bottle may not be released for shipment until the Child Resistant Packaging Certification and associated labeling submitted August 3, 2005 has been accepted.
- 5. Submit two (2) copies of your final printed labeling before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.



For use only by Individuals/firms licensed or registered by the state to apply termiticide products when used as a termiticide. 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.

To control structural pests indoors and outdoors in and around residential, commercial, industrial, institutional and public structures and buildings.

To control pests of lawns and ornamental plants in lawns, parks, grounds, landscapes, recreational areas and athletic fields.

Active Ingredient:	By Wt.
"fenthrin*	7.9%
cher Ingredients:	<u>92.1%</u>
TOTAL:	100.0%

\*Cis isomers 97% minimum, trans isomers 3% maximum.

#### 

Isopthor SC contains 2/3 pounds active ingredient per gallon.

(PRECAUCION AL USUARIO: Si usted no puede leer o entender ingles, no use este producto hasta gue la etiqueta le haya sido explicada ampliamente.)

(TO THE USER: If you cannot read and understand English, do not use this product until the label has been fully explained to you.)

For product use information call 1-888-398-3772 or visit www.isopthor.com.

### KEEP OUT OF REACH OF CHILDREN

CAUTION

Manufactured For:

ENSYSTEX II, Inc.

Favetteville, NC 28303

**Net Contents:** 

ACCEPTED
with COMMENTS
In EPA Letter Dated:
AUG 1 6 2005

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amazided, for the pesticide registered under EPA Reg. No.

FIRST AID			
If swallowed	Call poison control center or doctor immediately for 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 to an unconscious person.		
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.		
	<ul> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>		
lf on skin or	Take off contaminated clothing.		
clothing	Rinse skin immediately with plenty of water for 15 to 20 minutes.		
	<ul> <li>Call a poison control center or doctor for treatment advice.</li> </ul>		
If in eyes	Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.		
	Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.		
	<ul> <li>Call a poison control center or doctor for treatment advice.</li> </ul>		
	HOTLINE NUMBER		
Have the product	Have the product container or label with you when calling a poison		

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-(888)-398-3772 for emergency medical treatment information.

#### **NOTE TO PHYSICIAN**

This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.

# PRECAUTIONARY STATEMENTS Hazards to Humans and Domestic Animals CAUTION

Harmful if swallowed, inhaled or absorbed through skin. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove contaminated clothing and wash before reuse.

Personal Protective Equipment: All pesticide handlers (mixers, loaders and applicators) must wear long-sleeved shirt and long pants, socks, shoes and chemical-resistant gloves. All pesticide handlers must wear a respiratory protection device when working in a non-ventilated space (such as a NIOSH approved respirator with any R, P or HE filter or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P or HE pre-filter). All pesticide handlers must wear protective eyewear, such as goggles, faceshield or safety glasses, when working in a non-ventilated space or when applying as a termiticide by rodding or sub-slab injection. After the product is diluted in accordance with label directions for use (or if an inline injector system is used) shirt, pants, socks, shoes and waterproof gloves are sufficient.

Termite Control Treatment: 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

4/12

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.

#### **Environmental Hazards**

This pesticide is extremely toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate. Care should be used when spraying to avoid fish and reptile pets in/around ornamental ponds.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

#### **Physical and Chemical Hazards**

Do not apply this product or solutions of this product around electrical equipment, such as electrical conduits, motor housings, junction boxes, "vitch boxes, etc. due to the possibility of shock hazard.

#### **DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply as a broadcast application to interior wall and floor surfaces of homes except as otherwise permitted.

Do not apply by aircraft or through an irrigation or chemigation system.

Do not allow spray to drift onto ponds, streams or lakes.

Do not apply in greenhouses or nurseries.

Not for use on sod farm turf, golf course turf or grass grown for seed.

#### STORAGE AND DISPOSAL

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

Pesticide Storage: Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Handle and open container in a manner so as 'p prevent spillage. Do not put concentrate or dilute material into and or drink containers.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label directions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

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

In Case of Spill: Confine it, avoid contact, isolate area and keep animals and unprotected persons away. Form dike around spill area and/or absorb spill with absorbent materials, such as sand, cat litter or clay. Place damaged package in a holding container and identify contents. Contact Ensystex II at 1-888-398-3772 for any assistance.

## APPLICATION FOR CONTROL OF SUBTERRANEAN TERMITES

#### General

Isopthor SC, in the form of a dilute insecticidal solution, prevents and controls subterranean termite infestations in and around structures and other items by creating a continuous chemically treated zone (horizontal and/or vertical as needed) between the wood and other

cellulose material in the structure and termite colonies in the soil. In order to establish a barrier between the wood in the structure and the termites in the soil, adequately disperse the solution of this product in the soil. Isopthor SC can also used to directly treat termite infested wood, however such treatments should be considered to be supplementary to, and not a replacement for, soil based applications of this product.

To effectively control termites with this product, the service technician should be familiar with current termite control practices including trenching, rodding, sub-slab and void injection, soil surface fan spraying, excavated soil treatment and brush, spray and injection applications to wood. Correct use of these techniques is necessary to effectively control infestations by subterranean termites such as Coptotermes, Heterotermes, Reticulitermes and Zootermopsis. The service technician should consider the biology and behavior of the termite specie(s) to be controlled to determine which control practices to use.

Treatment standards and procedures for subterranean termite control may vary due to regulations, water table level, structure design, soil types, construction practices and other factors. For advice concerning current control practices with respect to specific local conditions, consult resources in structural pest control and state cooperative extension and regulatory agencies. Follow all federal, state and local regulations and treatment standards for protection of a structure from subterranean termites.

Effective termite control may also include mechanical alteration of the structure. Elimination of leaks or points of moisture accumulation within or on the exterior of the structure that result in an increase in the moisture content of wooden structural components is advised. Removal of non-essential cellulose containing materials that are in contact with the ground under or around the structure can reduce termite foraging in the area. When untreated wooden parts of the structure touch the ground and such contact cannot be broken, creating a barrier between the soil and such components using a solution of the product may protect the components and the structure against termite attack.

Isopthor SC is labeled for use against subterranean termites as a 0.06% - 0.12% solution in water, however the 0.06% finished solution should be used for typical control situations. When difficult or problem soils or construction types are encountered, it may be necessary to use 0.12% Isopthor SC mixed in reduced volumes of water. All treatment directions contained in this label may not be necessary to provide adequate protection against termites.

Avoid contamination of water supplies due to backflow under reduced water system pressure by using anti-backflow equipment or procedures to prevent siphoning of any solution back into a water supply. Do not contaminate cistems or wells. Do not treat soil that is water saturated or frozen. Do not treat while precipitation is occurring. Do not apply solution to an area or site if the soil at the area or site is in such a state or condition that runoff or movement of the solution from the treated area or site is likely to occur. Consult state and local specifications for recommended distances of wells from treated areas, or if such regulations do not exist, refer to Federal Housing Administration Specifications (H.U.D.) for guidance.

For the purposes of this label and its directions, crawl spaces are to be considered to be inside of the structure.

## Mixing Directions For Isopthor SC For Use As A Termiticide

Mix Isopthor SC for use as a termiticide in the following manner:

- 1. Fill tank 1/4 to 1/3 full.
- Start pump to begin by-pass agitation and place end of treating tool in tank to allow circulation through hose.
- 3. Add appropriate amount of Isopthor SC.
- 4. Add remaining amount of water.
- Let pump run and allow recirculation through the hose for 2 to 3 minutes.

Isopthor SC may also be mixed into full tanks of water, but substantial agitation is required to ensure uniformity of the solution.



#### Dilution of Isopthor SC for Use as a Termiticide

For termite control, use rates for Isopthor SC are expressed and the solution is mixed according to the percentage (%) concentration it forms when mixed in water. Use the mixing table or alternately the formulas below to determine the amount of Isopthor SC to add to any quantity of water.

To prepare a 0.06% water solution, ready to use, dilute 3 quarts of Isopthor SC with 99.25 gallons of water. To prepare a 0.12% water solution, ready to use, dilute 6 quarts of Isopthor SC with 98.5 gallons of water.

Mixing Table for Isopthor SC for Use as a Termiticide			
Solution Percentage Concentration Desired	Gallons of Finished Solution Desired	Amount of Isopthor SC to add	Water to mix with Isopthor SC
0.06%	1	1 oz	127 oz.
	5	5 oz	4.9 gal.
	25	25 oz.	24.8 gal.
	50	1 qt.+16 oz.	49.6 gal.
<b>~</b>	100	3 qt	99.25 gal.
0.12%*	1	2 oz	126 oz.
	5	10 oz	4.9 gal.
•	25	1 qt.+18 oz.	24.6 gal.
	50	3 qt.	49.2 gal.
	100	6 qt	98.5 gal.

\*Only use the 0.12% rate in accordance with the Adjustments to Application Volume section. May also be used in accordance with the FOAM APPLICATION and APPLICATIONS TO PROTECT UNDERGROUND ITEMS FROM TERMITE ATTACK sections.

#### Calculating an Amount of Isopthor SC to Mix

To mix any amount of Isothor SC for termite control, determine:

A = Units of water into which the Isopthor SC will be mixed. Express any partial units as decimal fractions (1/2 = .5). Any unit of measure, such as gallons or quarts, can be used for A. Answers to equations below are in same units as A.

Isopthor SC to add to A for 0.06% = A / 132.3

Isopthor SC to add to A for 0.12% = A / 65.7

To convert gallons to fluid ounces, multiply number of gallons X 128

3 fluid ounces = 16 cups = 8 pints = 4 quarts = 1 gallon

32 fluid ounces = 1 quart

#### **Application Volume**

To provide maximum control and protection against termite infestation, apply the specified volume of the finished water solution containing the specified amount of Isopthor SC as set out below or as otherwise directed in this label.

Prescribed Horizontal Barrier Rate: Unless otherwise directed, horizontal barriers are created by applying a 0.06% solution at a rate of one gallon of solution per 10 square feet. (One gallon of 0.06% solution contains 1.0 fluid ounce of Isopthor SC.)

Prescribed Vertical Barrier Rate: Unless otherwise directed, vertical barriers are created by applying a 0.06% solution at a rate of four gallons of solution per 10 linear feet per foot of depth. (Four gallons of 0.06% solution contains 4.0 fluid ounces of Isopthor SC.)

#### **Adjustments to Application Volume**

If soil will not accept the labeled application volumes, 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 likelihood of obtaining a continuous barrier. Variance is allowed when volume and concentration are consistent with label directed rates and a continuous barrier can still be achieved. When volume is reduced, the spacing of

holes created for sub slab injection and soil rodding may need to be reduced to account for decreased dispersion of the solution in the soil.

For example, adjust the amount of solution applied to deliver a horizontal barrier of 10 square feet from 1 gallon to as low as 0.5 gallons and as high as 2 gallons while maintaining the amount of Isopthor SC (1 fluid ounce) applied per 10 square feet.

For example, adjust the amount of solution applied to deliver a vertical barrier 10 feet long by one foot deep from 4 gallons to as low as 2 gallons and as high as 8 gallons while maintaining the amount of Isopthor SC (4 fluid ounces) applied per 10 linear feet.

#### PRE-CONSTRUCTION TREATMENT

#### **All Structures**

Pre-construction treatment: Do not apply at a lower dosage and/or concentration than specified on this label for applications prior to the installation of the finished grade.

Prior to each application, applicators must notify the general contractor, construction superintendent, or similar responsible party, of the intended termiticide application and intended sites of application and instruct the responsible person to notify construction workers and other individuals to leave the area to be treated during application and until the termiticide is absorbed into the soil.

Effective control of subterranean termites can be accomplished during construction by using a 0.06% solution of Isopthor SC to establish vertical and/or horizontal barriers between the structure and the soil as directed. To meet current termite proofing requirements, follow the procedures in the latest edition of the Housing and Urban Development Minimum Property Standards.

### Horizontal Barriers Under Slabs on Ground Including Basements

Create a horizontal barrier on the entire surface of soil or substrate that will be covered by a slab, including, but not limited to, slab floors, garages, carports, basements, porches and entrance platforms by treating the soil or substrate with the solution at the Prescribed Horizontal Barrier Rate.

If the fill under the slab is a coarse material such as washed gravel, make sure that a sufficient enough amount of dilution is applied that the solution reaches the soil beneath the fill.

Apply solution using a coarse spray nozzle. If the slab over the treated area will not be poured on the same day as the application (and there are no foundation walls in place around the treated soil) cover treated soil with a water-proof barrier such as polyethylene sheeting.

#### **Vertical Barriers**

Create a vertical barrier along the inside and outside of foundation walls, around piers, plumbing and utility service entrances and other points of possible future termite access and entry by treating the soil at these points at the Prescribed Vertical Barrier Rate. When trenching and rodding into the trench, or trenching alone, it is important that the solution reaches the top of the footing. Rod holes must be spaced so as to achieve a continuous termiticidal barrier, but they should in no case be more than 12 inches apart. Trenches need not be wider than 6 inches. Mix the solution into the soil as it is being replaced in the trench. Care should be taken to avoid washing soil out from around footings thereby undermining the stability of the structure. An inside vertical barrier may not be required for a monolithic slab.

If distance from final grade to top of footing will be less than four feet, it is permissible to wait until final grade is established to apply the vertical barrier. When treating foundations deeper than 4 feet, apply the termiticide as the backfill is being replaced, or if the construction contractor fails to notify the applicator in time to permit this, treat the foundation to a minimum depth of 4 feet after the backfill has been installed. The applicator must trench and rod into the trench or trench along the foundation walls and around pillars and other foundation elements, at the rate prescribed from grade to a minimum depth of 4 feet. 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. However, in no case should a structure be treated below the footing.



#### **Hollow Block Foundations and Voids**

Hollow block foundations and voids may be treated at a rate of 2 gallons of solution per 10 linear feet to create a continuous treated zone within the voids at the footing.

#### POST CONSTRUCTION TREATMENT

#### **All Structures**

Do not apply treatment until the identity and location of all wells, radiant heat pipes, water and sewer lines, electrical conduits and sub-slab heating and air conditioning ducts is established. Caution must be taken to avoid puncturing these elements and/or injecting solution into them. 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.

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

## Structures Containing Concrete Slabs on Ground (Monolithic/Floating/Supported) including Basements

To make an application beneath existing slabs, it may be necessary to drill holes in the slab or adjacent foundation and to apply solution. Holes should be spaced such that when treatment is applied through them, a continuous treated zone is applied beneath the slab.

Vertical Barriers Along Exterior of Foundation Walls: Trench and rod into the trench or trench along the outside of foundation walls and treat at the Prescribed Vertical Barrier Rate to the depth specified under Vertical Barrier Depth. Where physical obstructions such as concrete walkways adjacent to foundation elements or soil type and/or conditions make trenching prohibitive, treatment may be made by rodding alone.

Vertical Barriers Along Interior of Foundation Walls: Vertical barriers may be established on the interior side of foundation walls by sub-slab injection of the solution at the Prescribed Vertical Barrier Rate. Injection openings can be drilled either vertically through the slab along interior of the foundation wall or horizontally from the exterior ough the foundation wall low enough on the wall to allow for the deposition of the solution beneath the slab along the interior side of the foundation wall. Drill holes should be spaced so as to achieve a continuous chemical barrier but in no case farther apart than 12 inches. Special care must be taken to distribute the solution evenly. Vertical barriers may also be established beneath the slab along both sides of

interior footing-supported walls, one side of interior partitions and along

all cracks and expansion joints and utility service entrances and bath

Horizontal Barriers Beneath Slabs on Ground: Create a horizontal barrier by treating at the Prescribed Horizontal Barrier Rate beneath slabs by either drilling and long rodding from the exterior or by grid pattern drilling and injection vertically through the slab. Long rodding should be used only when grid pattern drilling and injection and horizontal short rodding and injection cannot be used to deliver the sub slab treatment.

Bath Traps: Exposed soil beneath and around areas where plumbing and utility services penetrate the slab should be treated at the rate of 1 gallon of solution per square foot of soil.

#### Structures Containing Accessible Crawl Spaces

For crawl spaces, apply vertical termiticide barriers at the rate of 4 gallons of solution 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 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 the mixing and use direction section of the label if situations are encountered where the soil will not accept the full application volume.

- Rod holes and trenches must not extend below the bottom of the footing.
- Rod holes must be spaced so as to achieve a continuous termiticide 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 solution must be mixed with the soil as it is replaced in the trench.
- When treating plenums or crawl spaces, turn off the air circulation system of the structure until application has been completed and all solution has been absorbed by the soil.

#### Structures Containing Inaccessible Crawl Spaces

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

- 1. To establish a horizontal barrier, apply to the soil surface, 1 gallon of solution per 10 square feet overall using a nozzle pressure of less than 25 p.s.i. 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.
- To establish a horizontal barrier, drill through the foundation wall or through the floor above and treat the soil perimeter at a rate of 1 gallon of solution 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.

When treating plenums or crawl spaces, turn off the air circulation system of the structure until application has been completed and all termiticide has been absorbed by the soil.

#### **Masonry 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 solution per 10 linear feet of footing using a nozzle pressure of less than 25 p.s.i. When using this treatment access holes must be drilled below the sill plate and should be as close as possible to the footing as is practical. Treatment of voids in block or rubble foundation walls must be closely monitored: 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 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 the contaminated areas of the structure until the clean-up is completed.

Note: When drilling veneer walls, care should be taken to not drill beyond the depth of the void behind the veneer into another construction layer behind the veneer. It is however permissible to drill through the veneer and into concrete blocks behind the veneer and to treat the veneer and the concrete blocks at the same time.

Note: Not for use in voids insulated with rigid foam.



## TREATMENT OF STRUCTURES WITH WELLS AND CISTERNS

Do not contaminate wells or cistems.

#### Structures with Wells/Cistems Inside Foundations

Structures that contain wells or cisterns within the foundation of a structure can only be treated using the following techniques:

- 1. Do not treat soil while it is beneath or within the foundation or along the exterior perimeter of a structure that contains a well or cistern. The treated backfill method must be used if soil is removed and treated outside/away from the foundation. The treated backfill technique is described as follows:
  - Trench and remove soil to be treated onto heavy plastic sheeting or similar material or into a wheelbarrow.
  - b. Treat the soil at the rate of 4 gallons of dilute solution per 10 linear feet per foot of depth of the trench, or 1 gallon per 1.0 cubic feet of soil. See Mixing Directions for Isopthor SC for Use as a Termiticide section of the label. Mix thoroughly into the soil taking care to contain the liquid and prevent runoff or spillage.
  - After the treated soil has absorbed the solution, replace the soil into the trench.

Treat infested and/or damaged wood in place using an injection technique such as described in the APPLICATION TO WOOD INDOORS TO PROTECT AGAINST WOOD DESTROYING INSECTS or APPLICATION TO WOOD OUTDOORS TO PROTECT AGAINST WOOD DESTROYING INSECTS sections of this label.

## Structures with Adjacent Wells/Cisterns and/or Other Water Bodies

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.

- Prior to treatment, if feasible, expose the water pipe(s) coming from a 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 the risk of applying the 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.
- When appropriate (for example, on the water side of the structure), the treated backfill technique (described above) can also be used to minimize offsite movement of termiticide.

#### FOAM APPLICATION

Isopthor SC, in the form of a foam, can be used to deliver Isopthor SC as a termiticide any time it appears likely this form of delivery will improve the dispersal of Isopthor SC into and within the intended target area. Foam can be particularly useful to deliver Isopthor SC where it either cannot be depended upon to be delivered as just a solution or due to a need to reduce the amount of water used in order to avoid water damage to the target or adjacent areas. In some situations, for example under some slabs, a solution cannot be depended upon to disperse as completely as a foam because of deflection of the liquid stream or some other structural obstacle or defect.

Depending on the circumstances, foam applications of Isopthor SC may be used alone or in combination with liquid solution applications, provided that the cumulative amount of active ingredient per unit of area applied is equivalent to that which would be contained in a 0.06% solution-only application applied to the same area.

Using foam generating equipment, a solution of Isopthor SC, ranging in concentration from 0.06% to 0.12%, may be converted into a foam according to the foaming agent and foaming equipment manufacturer's recommendations.

First, form a solution of Isopthor SC of the appropriate percentage concentration and volume. Then add the recommended volume of a foaming agent. Verify that the foaming agent is compatible with Isopthor SC.

Applications may be made behind veneers, piers, chimney bases, into rubble foundations, into block voids, structural voids or other similar voids, under slabs, stoops, porches or to the soil in crawlspaces.

#### RETREATMENT

Retreatments for subterranean termites can only be performed if there is clear evidence of reinfestation or disruption of the barrier due to construction, excavation or landscaping and/or evidence of the breakdown of the termiticide barrier in the soil. These vulnerable or reinfested areas may be retreated in accordance with application techniques described in this product's labeling. 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 barrier.

Annual retreatment of the structure is prohibited unless there is clear evidence that reinfestation or barrier disruption has occurred.

## APPLICATION IN CONJUNCTION WITH TERMITE BAITS

Spot only applications of Isopthor SC can be used as a supplement to termite baiting systems. For the purposes of this section, spot only applications are defined as the use of Isopthor SC according to any of the permitted and applicable post-treatment application techniques contained in this label, alone or in combination, to the extent needed or deemed necessary or useful as an adjunct to a termite bait product labeled as a stand alone protection against termite attack. Stand alone termite bait product is defined as a termite bait product that provides sufficient structural protection when applied without other termite control products.

## APPLICATION TO PROTECT UNDERGROUND ITEMS FROM SUBTERRANEAN TERMITE ATTACK

To protect components installed underground such as wires, conduits, cables and pipes buried in soil against termite attack, create an envelope of Isopthor SC treated soil around the components along the entire underground length of the component. First, treat soil through which components will be run with 0.06% to 0.12% solution of Isopthor SC at a rate of 2 gallons of solution per 10 linear feet. Install components, laying them on the treated soil. Cover components with untreated soil and then treat this covering soil using the same percent solution at 2 gallons of solution per 10 linear feet.

Underground components to be protected may be located within the foundation of a structure or outside of a structure such as within a utility right of way, for example. Do not treat items that are electrically energized at the time of application. If the soil will not absorb the indicated amount of solution, as little as 1 gallon of 0.12% solution per 10 linear feet can be used. Treat points where services emerge from the ground at a rate of 1 to 2 gallons of solution at the point of emergence.

# APPLICATIONS TO PROTECT POLES, POSTS AND OTHER WOODEN ITEMS FROM SUBTERRANEAN TERMITE ATTACK

Isopthor SC can be used to protect the below ground portions of wooden structural components from termites. Form a treated zone around components below ground by vertically rodding the soil around their perimeter to a depth of six inches below their maximum depth of placement in the soil and applying a 0.06% solution of Isopthor SC at a rate of 0.4 gallons of solution per linear foot of perimeter around the component per foot of treated depth. Measure the perimeter of the component six inches from the outside of the component.



## APPLICATIONS TO CONTROL WOOD INFESTING INSECTS

Mix and dilute Isopthor SC according to the instructions contained in the APPLICATION FOR CONTROL OF SUBTERRANEAN TERMITES section.

## APPLICATIONS TO CONTROL EXPOSED WOOD INFESTING INSECTS LOCATED ABOVE GROUND

Isopthor SC can be applied above ground as a non-soil treatment to control and kill exposed worker and winged reproductive (swarmer) termites and carpenter ants. This type of application is only supplementary to and should not be considered as a replacement for soil treatment in the case of termite infestation.

Apply a 0.06% solution as a general fan spray within attics, crawl spaces, unfinished basements and other void areas where termites have been found. Apply treatment directly to swarming termites and areas where they congregate.

## APPLICATIONS TO TERMITE CARTON NESTS LOCATED IN ABOVE GROUND WALL VOIDS

Apply a 0.06% solution of Isopthor SC directly into above ground termite carton nests including nests located in wall voids using a actional injector. Apply as a solution or foam under pressure to astribute solution thoroughly throughout the nest. It may be necessary to inject solution at one or more points and at varying depths within the nest to adequately distribute solution within the interior of the nest.

## APPLICATION TO WOOD INDOORS TO PROTECT AGAINST WOOD INFESTING INSECTS

A 0.06% solution of Isopthor SC applied as a liquid or foam to wooden structural components within structures can be used to protect them against attack from wood infesting insects such as termites, carpenter ants and wood boring beetles or borers. This type of application is only supplementary to and should not be considered a replacement for soil treatment in the case of termite infestation.

Apply solution as a general fan spray onto the surface of the wood or inject solution under pressure into the wood as a liquid or foam. Inject by either injecting solution through a directional injector directly into existing voids and galleries or by drilling wood to form treatment channels through which the solution can be injected into the insect galleries. Multiple treatment channels of varying depth may need to be drilled to adequately distribute the solution within the wood interior. Folication can also be made with a paintbrush.

Lefore application, locate heat pipes, ducts, water and sewer lines and electrical conduits. Take precautions to avoid puncturing and/or injecting solution into these items. Do not apply solution inside of electrified enclosures, switches or sockets.

Plastic sheeting must be placed below any indoor overhead surfaces being treated that are located anywhere except within a soil-based crawl space. Wear protective clothing, unvented goggles, gloves and respirator when making an overhead application or when applying in poorly ventilated indoor areas. Do not touch surfaces until spray has dried.

When treating in home food preparation and storage areas, cover all food preparation surfaces and utensils prior to beginning treatment. Surfaces or items that cannot be covered or removed should be thoroughly washed after treatment and before use. Food that cannot be covered should be removed. Before application, remove pets, birds and cover and disconnect aquaniums. Do not allow humans and pets to touch treated surfaces until they have dried.

## APPLICATION TO WOOD OUTDOORS TO PROTECT AGAINST WOOD DESTROYING INSECTS

#### On and around structures

A 0.06% solution of Isopthor SC applied as a liquid or foam to exterior structural components can be used to protect them from the attack of wood infesting insects such as termites, carpenter ants and wood boring beetles or borers. Apply solution by general fan spray to the point of runoff onto the surface of the wood or inject solution under

pressure into the wood as a liquid or foam. Inject by either injecting solution directly into existing voids and galleries or drilling wood to form treatment channels through which the solution can be injected into the insect galleries. Multiple treatment channels of varying depth may need to be drilled to adequately distribute the solution within the wood interior. Application can also be made with a paintbrush.

To control carpenter ants, also apply solution around doors and windows and other areas carpenter ants have been observed or can be expected to forage.

#### Within wooden components and trees

Locate the cavity that the insects (such as carpenter ants) are inhabiting. Inject a 0.06% solution of Isopthor SC into the cavity as a solution or foam. Apply a sufficient volume of solution to completely flood or fill the cavity. Drill injection channels if necessary.

#### APPLICATION FOR LAWN PESTS

Isopthor SC controls a wide range of turfgrass insect and mite pests. Isopthor SC is not for use on turfgrass grown for sale, commercial seed production, for other commercial use or for research. Not for use on golf course turf.

#### **Application Sites**

For use on any type of landscape or recreational turfgrass in any type of setting or at any type of site except as otherwise prohibited. Permitted sites include but are not limited to lawns, grounds, recreational areas, parks, landscapes and athletic fields. New York State only: Do not apply Isopthor SC containing solutions to grass or turf within 100 feet of a body of water (lake, pond, river, stream, wetland or drainage ditch).

#### **Application Precautions and Preparations**

Keep children and pets off treated areas until spray has dried.

If necessary, test the effects of applications of different rates and volumes of mixed solution on a small patch of a type of grass (with observations over one week to detect the occurrence of negative effects) before application of solutions to large areas of that type of grass.

Isopthor SC can be mixed with other pesticides, including insect growth regulators. Follow the label directions of all the products mixed, making sure not to exceed the labeled application rate of any individual product in the mixture. Any tank mixture that has not been tested before should be tested before full scale use by first mixing a small quantity of the mixture to ensure there is no physical or chemical incompatibility.

#### **Application Methods**

Apply solution as a broadcast treatment in a quantity sufficient to wet all foliage. If necessary, consult resources in horticulture in your area (such as your Cooperative Extension Service) to determine appropriate application timing and cultural practices to control different types of pests.

#### Reapplication

Reapplications may be necessary particularly in the event of high pest pressure. Reapply as needed based on pest reinfestation. Reapplications should not occur more often than every 7 days. New York State only: Do make a single reapplication of Isopthor SC If there is renewed insect activity, but not sooner than two weeks after first application.

#### Lawn Application Use Rates and Volumes

Use rates for Isopthor SC for lawn pests are stated in fluid ounces of Isopthor SC per 1000 square feet.

Apply Isopthor SC at 0.18 to 1.0 fluid ounces per 1000 square feet depending on the target pest. Recommended rates for specific pests within this range are given below. However, applications of up to 1.0 fluid ounce per 1000 square feet are permitted at the discretion of the applicator to control any pest.

Depending on the length and/or density of grass being treated, application volumes of up to 10 gallons per 1000 square feet can be made in order to obtain uniform coverage. If a minimal volume application is made (2 gallons per 1000 square feet) and the target pest,



such as mole crickets or chinch bugs for example, are located in the , thatch or below the surface, irrigate the treated area with at least 0.25 inches of water immediately after the application.

The calculated amount of Isopthor SC can be applied in any volume of water as long as the maximum label rate of 1.0 fluid ounce per 1000 feet is not exceeded. Do not exceed the maximum label rate by applying solution to an area smaller than intended when it was mixed and diluted unless such under dosing will not result in an application rate per 1000 square feet in excess of the maximum label rate.

#### Lawn Pest Application Use Rates -

The application rates listed below provide control of the listed pests under normal conditions. At the discretion of the applicator, up to 1.0 fluid ounce of Isopthor SC per 1000 square feet can be used to control any of the listed pests. Use the higher application rates when maximum residual control is needed.

Use Rate Table for Isopthor SC for Lawn Applications			
Use Rate	Fluid ounces Isopthor SC per 1,000 square feet (Range)		
Α	0.18⇒0.25		
В	0.25⇒0.50		
С	0.50 ⇒1.00		

#### Lawn Pests Grouped by Use Rates

Use Rate A: Armyworms, Cutworms, Sod Webworms

Use Rate B: Annual Bluegrass or Hyperodes Weevil (Adult), (Banks Grass Mite, Billbugs (Adult), Black Turfgrass Ataenius (Adult), Centipede, Chinch Bug, Cricket, Earwigs, Fleas (Adult), Grasshoppers, Leafhoppers, Mealybugs, Millipedes, Mites, Pillbugs, Sowbugs

 Use Rate C: Ants, Fleas (Larvae), Imported Fire Ant, Japanese Beetle (Adult), Mole Cricket (Nymph and Adult), Ticks

Mixing Table for Isopthor SC for Lawn Applications				
Application Volume: Gallons/ 1000 sq. ft.	Use Rate: Fluid oz. / 1000 sq. ft.	Use these amounts of Isopthor SC diluted to these volumes of finished spray		
		5 gal.	10 gal.	25 gal.
2	.18	.45_	.90	2.25
	.25	.63	1.25	3.13
	.50	1.25	2.50	6.25
	1.00	2.50	5.00	12.50
5	.18	.18	.36	.90
	.25	.25	.50	1.25
	.50	.50	1.00	2.50
	1.00	1.00	2.00	5.00
10	.18		.18	.45
	.25	_	.25	.63
	.50		.50	1.25
	1.00	-	1.00	2.50

#### Calculating Amounts of Isopthor SC to Mix for Lawn Pests

To mix and apply any amount of Isopthor SC for lawn pests, determine:

A = Square feet of area to be treated / 1000 (5,500 sq. ft. /1000 = 5.5)

B = Use Rate per 1000 square feet for the target pest(s) in fluid ounces Isopthor SC taken from the Use Rate Table. If treating for more than one type of pest, select the highest rate.

Calculate the amount of Isopthor SC to mix for lawn pests as follows:

Fluid Ounces Isopthor SC to use = A X B

Mix this amount of Isopthor SC in the amount of water needed to make the application. After mixing, the percent of Isopthor SC active ingredient contained in the mixture can be determined using the following formula. % a. i. = (0.0617 X fluid oz. of Isopthor SC added) / gallons of water in

### Application Recommendations Against Specific Lawn Pests

Annual Bluegrass or Hyperodes Weevil (Adult): Consult your Cooperative Extension Service for advice on application timing in your area.

Armyworms, Cutworms, Sod Webworms: Do not water or mow grass within 24 hours of application for optimum control of these surface feeding insects.

Bilibug Adults: Make application when adults first appear in the spring or when chewed or brown grass indicates damage. Consult your Cooperative Extension Service for advice on more exact application timing in your area.

Chinch Bugs: Water grass immediately after application to help move active ingredient deeper into thatch where these insects live. The highest application rate may be necessary to achieve control during the summer

Imported Fire Ant: Combine broadcast treatments to control newly invading ants and mound treatments to eliminate existing ant colonies. Treat mounds according to the Structural Pests Outside and Around Structures section of this label. For best results, make application during cool weather (65 to 80 degrees F) or in the early morning or late evening.

Mole Crickets: Make application late in the day and water grass immediately after application to move treatment down into the grass where these insects live. If soil is not moist, water before treatment also to bring crickets closer to surface before application. Treating at the time of peak egg hatch increases control of hatching nymphs. Frequent applications may be necessary to control larger nymphs later in the year.

**Ticks:** (including ticks that may transmit Lyme Disease and Rocky Mountain Spotted Fever) - Treat the entire area where ticks could be present. Begin treatments in the spring. Ticks may be re-introduced by host animals in the surrounding area. Retreats may be necessary to achieve and maintain control during periods of high pest pressure.

#### APPLICATION FOR ORNAMENTAL PESTS

Isopthor SC controls a wide range of insects and mites on trees, scrubs, foliage plants, non-bearing fruit and nut trees and flowers. Non-bearing trees are perennial plants that will not produce a harvestable agricultural commodity within the next 12 months. Isopthor SC is not for use on plants being grown for sale, for commercial seed production or for research purposes.

#### **Application Sites**

For use on ornamental plants including but not limited to trees, shrubs, ground covers, bedding plants and foliage plants being used for decorative or climate modification purposes. Plants on which use is permitted include those being grown in any type of setting or at any type of site not otherwise prohibited. Permitted sites include but are not limited to ornamental gardens, parks, landscapes, lawns, grounds and interior plantscapes.

#### **Application Preparation**

If necessary, test the effects of applications of different rates and volumes of mixed solution on a small number of a type of plant (with observations over one week to detect the occurrence of negative effects) before application of solution to large numbers of that type of plant.

Isopthor SC can be mixed with other pesticides, including insect growth regulators. Follow the label directions of all the products mixed, making sure not to exceed the label rate of any individual product in the mixture. Any tank mixture that has not been tested before should be tested before full scale use by first mixing a small quantity of the mixture to ensure there is no physical or chemical incompatibility.



#### **Application Methods**

Apply solution in a quantity sufficient to wet all foliage. It may also be necessary to treat non-foliage parts of plants such as trunks and bark to control some pests based on where the pest may be located on the plant at a particular life stage.

If necessary, consult resources in horticulture in your area (such as your Cooperative Extension Service) to determine appropriate application timing, cultural practices and placement of treatment on different parts of plants to control different pests.

#### Reapplication

Reapplications may be necessary as plant growth occurs and new foliage appears or in the event of high pest pressure. Reapply as needed based on pest re-infestation. Reapplications should not occur more often than every 7 days.

#### **Ornamental Application Use Rates and Volumes**

Use rates for Isopthor SC for omamental pests are stated in fluid ounces of Isopthor SC per 1000 square feet.

Recommended ornamental application use rates based on the target pest, range between 0.125 to 1.0 fluid ounce of Isopthor SC per 1,000 square feet. Recommended rates for specific pests within this range are given below. However, applications of up to 1.0 fluid ounce per 70 square feet are permitted at the discretion of the applicator to 1 atrol any pest.

The calculated amount of Isopthor SC can be applied in any volume of water as long as the maximum label rate of 1.0 fluid ounce per 1000 feet is not exceeded. Do not exceed the maximum label rate by applying solution to an area smaller than intended when it was mixed and diluted unless such underdosing will not result in an application rate per 1000 square feet in excess of the maximum label rate.

#### Ornamental Pest Application Rates

The application rates listed below provide control of the listed pests under normal conditions. At the discretion of the applicator, up to 1 fluid ounce of Isopthor SC per 1000 square feet can be used to control any of the listed pests. Use the higher application rate when maximum residual control is needed.

i	Use Rate Table for Isopthor SC for Ornamental Applications		
	Use Rate	Fluid ounces Isopthor SC per 1,000 square feet	
		(Range)	
	Α	0.125⇒0.250	
•	В	0.250⇒0.500	
Ì	С	0.500⇒1.000	

#### Ornamental Pests Grouped by Use Rates

Use Rate A: Bagworms, Cutworms, Elm Leaf Beetle, Fall Webworm, Gypsy Moth Caterpillar, Lace Bug, Leaf Feeding Caterpillar, Tent Caterpillar

Use Rate B: Ants, Aphids, Bees, Beet Armyworm, Black Vine Weevil (Adult), Brown Soft Scale, Broad Mite, Budworms, California Red Scale (Crawler), Centipedes, Citrus Thrip, Clover Mite, Crickets, Diaprepes (Adult), Earwig, European Red Mite, Flea Beetles, Fungus Gnat (Adult), Grasshoppers, Leafhoppers, Leafrollers, Mealybugs, Millipedes, Mites, Mosquitoes, Orchid Weevil, Pillbugs, Pine Needle Scale (Crawler), Plant Bugs (Including Lygus spp.), San Jose Scale (Crawlers), Scorpions, Sowbugs, Spiders, Spittlebugs, Thrips, Tip Moth, Twig Borers, Wasps, Weevils, Whiteflies

Use Rate B except not for use in California - Adelgids, Beetles, Cicadas, Japanese Beetle (adult), Psyllids, Spittlebugs, Treehoppers

Use Rate C: Imported Fire Ant, Leafminers, Pecan Leaf Scorch Mite, Pine Shoot Beetle (Adults), Spider Mites

Application Volume: Gallons/ 1000 sq. ft.	Use Rate: Fluid oz. / 1000 sq. ft.	Use these amounts o Isopthor SC diluted to these volumes of finished spray		to these
		5 gal.	10 gal.	25 gal.
2	125	.31	.63	1.56
	.250	.63	1.25	3.13
	.500	1.25	2.50	6.25
	1.000	2.50	5.00	12.50
5	.125	.13	.25	.63
	.250	.25	.50	1.25
	.500		1.00	2.50
	1.000	1.00	2.00	5.00
10	.125		.13	.31
	.250		.25	.63
	.500	_	.50	1.25
	1.000		1.00	2.50

## Calculating Amounts of Isopthor SC to Mix for Ornamental Pests

To mix and apply any amount of isopthor SC for ornamental pests, determine:

A = Square feet of area to be treated /1000 (5,500 sq. ft. /1000 = 5.5)

B = Use Rate per 1000 square feet for the target pest(s) in fluid ounces Isopthor SC taken from the Use Rate Table. If treating for more than one pest, select the highest rate.

Calculate the amount of Isopthor to mix for ornamental pests as follows:

Fluid Ounces Isopthor SC to use = A X B

Mix this amount of Isopthor SC in the amount of water needed to make the application. After mixing, the percent of Isopthor SC active Ingredient contained in the mixture can be determined using the following formula.

% a. i. = (0.0617 X fluid oz. of Isopthor SC added) / gallons of water in container

## Application Recommendations Against Specific Ornamental Pests

**Bagworms:** Spray when bagworms first begin to hatch. Apply directly to the larvae. Treatment is most effective against young larvae.

## STRUCTURAL PESTS (OTHER THAN WOOD INFESTING INSECTS)

Isopthor SC controls a wide range of structural pests including nuisance pests inside and outside of structures. Isopthor SC can be applied in and around any type of residential or commercial structure, building or mode of transport including food/feed handling establishments unless otherwise prohibited. Permitted sites include but are not limited to the interior and exterior of homes, office buildings, mobile and modular homes, apartments and stores. Do not apply within aircraft cabins.

#### **Dilution of Isopthor SC for Structural Pests**

For structural pests, use rates for Isopthor SC are expressed and mixed according to the percentage (%) concentration solution it forms when mixed in water. Each 0.166 fluid ounce (1 teaspoon) of Isopthor SC that is added to one gallon of water increases the concentration of Isopthor SC in that one gallon of water by 0.01%. For example, to make a 0.06% solution in one gallon of water, mix 1 fluid ounce (6 teaspoons) of Isopthor SC in one gallon of water. Use the conversion table and formulas below to determine the amount of Isopthor SC to add to any quantity of water.



Mixing Table for Isopthor SC for Structural Pests			
% to mix	Fluid ounces to add per gallon to mix this %	Teaspoons to add per gallon to mix this %	
0.01	0.166	1	
0.02	0.333	2	
0.03	0.500	3	
0.04	0.666	4	
0.05	0.833	5	
0.06	1.000	6	

29.57 milliliters = 2 tablespoons = 6 teaspoons=1 Fluid ounce

## Calculating Amount of Isopthor SC to Mix for Structural Pests

Calculate the amount of Isopthor SC to mix for structural pests as follows:

A = Volume of water, in gallons, into which the Isopthor SC will be mixed. Express any partial gallons as decimal fractions (1/2 = .5)

B = Fluid ounces (or tablespoons) Isopthor SC per gallon from Mixing Table. Select the desired % concentration based on the site of application and the pest(s) to be controlled. Read across to find ount of Isopthor SC to add per gallon in fluid ounces or teaspoons.

Fluid ounces (or teaspoons) Isopthor SC to mix = A X B

Mix this amount of Isopthor SC in the predetermined amount of water (A). Food utensils such as teaspoons and measuring cups should not be used for food purposes after use with pesticides.

## STRUCTURAL PESTS OUTSIDE AND AROUND STRUCTURES

#### **Pests Controlled**

Ants (including Fire Ant), Armyworms, Bees, Biting Flies, Boxelder Bug, Centipedes, Chiggers, Chinch Bug, Clover Mites, Crickets, Cutworms, Dichondra Flea Beetle, Earwigs, Elm Leaf Beetle, Firebrats, Fleas, Flies, Gnats, Grasshoppers, Hornets, Midges, Millipedes, Mosquitoes, Moths, Pillbugs, Roaches (including Cockroaches), Scorpions, Silverfish, Sod Webworms, Sowbugs, Spider Mites, Spiders (including Black Widow Spider), Springtails, Ticks (including Brown Dog Tick) and Wasns.

Pest controlled (but not for use against in California)

atles including Japanese Beetle

#### **Application Methods**

Apply Isopthor SC as a solution in the form of a general surface, spot, crack and crevice, pinstream or coarse spray. Do not apply as a space spray. May also be applied with a paintbrush.

#### **Application Use Rates and Volumes**

Use a 0.02% to 0.06% solution of !sopthor SC. Use a spray volume of up to 10 gallons of solution per 1,000 square feet. Higher application volumes may be used if necessary to sufficiently wet vegetation and landscaping with the spray solution.

#### Re-Application

Treatments should not be repeated more often than once every 7 days. The best efficacy and longest residual control is achieved when the highest concentration is used.

#### Application Locations

Apply spray to the exterior surfaces of structures and to grounds, lawns, landscaping, plants and hard surface areas adjacent to structures. Can also be applied to any areas where pests congregate or have been seen.

#### **Perimeter Band Treatment**

To help prevent pest infestation of structures, create a treated zone or band on the structure, soil and vegetation around the entire perimeter of a structure. Apply solution to all surfaces within a band beginning 6 to 10 feet from the exterior foundation of the structure that extends back to the structure and then continues 2 to 3 feet up the exterior surface of the structure from the ground. Application volume will depend upon the nature of the surface being treated. Mulch areas, for example, require more volume and hard surface areas requiring less.

#### **Control of Specific Structural Pests Outdoors**

Ants (Nuisance ants other than Carpenter Ants) Outdoors: To achieve the highest level of control, locate and directly treat ant nests. Apply solution to ant trails, around doors and windows and at points where ants can be expected to forage or congregate.

For Ant (including Fire Ant) Mounds: Treat mounds and area within a 2 foot radius of the center of the mound with 1-2 gallons of a 0.06% solution. When mounds exceed 12 inches in size use the highest volume of solution. Applications in cool weather (65 to 80 degrees F) or the cooler parts of the day are most effective. Do not apply treatment during the heat of the day.

Bees, Wasps, Hornets, and Yellow Jackets: Always use the highest rate. Make application in late evening when insects are at rest at the nest for best results and to avoid stings. Spray nest openings in ground, in bushes and wherever insects may be nesting. Spray to the point of saturation. Spray as many insects as possible. Remove and destroy treated nests to prevent emergence of newly hatched insects.

**Boxelder Bug:** Apply directly to where insects have congregated at points of entry. It may be necessary to also treat trees.

Centipedes, Earwigs, Beetles, Millipedes, Pillbugs, Sowbugs: Thoroughly treat mulch areas. The reduction of moisture in mulch areas may also aid in control of these pests.

**Mosquitoes:** Apply solution to lawns and landscaping, under decks and to building foundations. Refer to *APPLICATIONS FOR ORNAMENTAL PESTS* section for mixing and applying large amounts of solution against mosquitoes.

Fleas and Ticks: Treat the entire area where insects could be present. Begin treatments in the spring. Insects may be re-introduced by host animals in the surrounding area. Retreatment may be necessary to achieve and maintain control during periods of high pest pressure.

# STRUCTURAL PESTS INSIDE STRUCTURES (OTHER THAN FOOD/FEED HANDLING ESTABLISHMENTS) INCLUDING MODES OF TRANSPORT

#### **Pests Controlled**

Ants, Bedbug, Bees, Beetles, Boxelder Bug, Carpet Beetles, Centipedes, Clothes Moth, Cockroaches, Crickets, Earwigs, Firebrats, Flies, Gnats, Midges, Millipedes, Pillbugs, Scorpions, Sowbugs, Silverfish, Spiders, Ticks and Wasps

#### Application Preparation

When treating in home food preparation and storage areas, cover all food preparation surfaces and utensils prior to beginning treatment. Surfaces or items that cannot be covered or removed should be thoroughly washed after treatment and before use. Food that cannot be covered should be removed. Before application, remove pets, birds and cover and disconnect aquariums. Do not allow humans and pets to touch treated surfaces until they have dried.

#### **Application Use Rates**

Use a 0.02% to 0.06% solution of Isopthor SC.

#### **Application Methods**

Apply Isopthor SC as a solution in the form of a general surface, spot, crack and crevice, pinstream or coarse spray. Isopthor SC may also be applied with a paintbrush. Do not apply as a space spray.

Isopthor SC may be converted to foam and used to treat structural voids. First form a solution of Isopthor SC of the appropriate percentage concentration and volume. Then add recommended volume of a compatible foaming agent. Verify that the foaming agent is compatible with Isopthor SC.

#### Application Locations

Apply to and around any areas pests or their evidence is seen or found, could hide or rest or could enter the premises including cracks and



previces, behind and under cabinets and appliances, around doors and windows, in attics and storage areas. Spot treatments to floor or rugs beneath furniture are permitted but do not apply to entire floor area.

#### **Control of Specific Structural Pests Indoors**

Cockroaches, Crickets, Firebrats, Scorpions, Silverfish, Spiders, and Ticks: Apply wherever these pests may hide, enter the structure or congregate such as cracks and crevices, baseboards, water pipe openings, around doors and windows, behind and under cabinets and appliances and within storage and attic areas.

Bedbug: To aid in control, apply to cracks and crevices wherever evidence of bedbugs has been found including within empty dressers and closets, on bed frames and box springs and behind high and low wall moldings and wallpaper edges. Do not apply to bed linens, blankets, pillows, mattresses or clothes. Remove all clothes and other articles from dressers or closets before application within them. Not recommended for use as a sole control agent against bedbugs. If evidence of bedbugs is found on or in mattresses, use products approved for application to this item.

Boxelder Bug, Centipedes, Earwigs, Beetles, Millipedes, Pilibugs, Sowbugs: Apply to points of pest entry into structure such as around windows and doors. Apply anywhere else pests may congregate or be located.

es, Wasps, Hornets, Yellow-Jackets: Always use the highest rate. ply solution to hiding and breeding places, contacting as many insects as possible. Best results are achieved when application is made in the evening when insects are at rest and to avoid stings. Spray to the point of saturation. Spray as many insects as possible. Remove and destroy treated nests to prevent emergence of newly hatched insects.

Ants (Nulsance ants other than Carpenter Ants) Indoors: To achieve the highest level of control, locate and directly treat ant nests and ant trails. Apply solution in areas infested by or expected to be infested by ants.

## CONTROL OF STRUCTURAL PESTS WITHIN FOOD/FEED HANDING ESTABLISHMENTS

Food/feed handling establishments are defined as places other than private residences in which exposed food/feed is held, processed, prepared or served. This includes areas for receiving, storing, packing (canning, bottling, wrapping, boxing) food. Also included are areas of edible waste storage and enclosed processing systems (mills, dairies, edible oils, syrups) of food. Serving areas where food is exposed and the facility is in operation are also considered food areas.

#### plication Location

Applications may be made to both food/feed and nonfood areas of food/feed handling establishments.

#### **Application Methods**

Isopthor SC can be applied within food/feed handling establishments in the form of a general surface, spot or crack and crevice spray.

#### **General Surface Application**

Do not use this application method when facility is in use or when foods are exposed. Do not apply solution directly to food. Cover or remove all food processing and/or handling equipment before application. After application in areas where food is commercially prepared or processed, wash all equipment, benches, shelving and other surfaces which food will contact. Rinse thoroughly with fresh, clean water. Clean food handling or processing equipment and thoroughly rinse with clean, fresh water.

#### **Spot and Crack and Crevice Application**

Spot or crack and crevice applications may be made while the facility is in operation. Food should be covered or removed from area being treated. Do not apply directly to food or food handling surfaces.

#### ATTENTION

Remove or cover and disconnect aquariums during application.

Do not apply a broadcast application to interior surfaces of living areas.

Do not apply to pets, crops, sources of electricity or firewood.

During any application to overhead areas of structure, cover surfaces below with plastic sheeting or similar material, except for soil surfaces in crawlspaces.

Wear protective clothing, unvented goggles, gloves and respirator when making an overhead application or when applying in poorly ventilated indoor areas.

Do not allow dripping or runoff to occur during indoor applications.

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

Thoroughly wash dishes and food handling utensils with soap and water if they become contaminated by application of this product.

Do not allow people or pets to touch or walk on treated surfaces until spray has dried.

Do not apply this product in nursing home or patient rooms or in any rooms while occupied by the elderly or infirmed.

Do not apply in classrooms when they are in use.

Do not apply when occupants are present in the immediate area in institutions such as health care facilities, libraries, schools, offices, etc.

Do not apply in livestock buildings such as barns.

Isopthor SC will not stain or damage any surface that water alone will not stain or damage.

#### IMPORTANT READ BEFORE USE

**NOTICE:** Read the entire Directions for Use, Conditions of Sale, Disclaimer of Warranties and Limitations of Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

CONDITIONS OF SALE: The Directions for Use of this product are believed to be adequate and should be followed carefully. However, because of manner of use and other factors beyond the control of Ensystex II, Inc., it is impossible for Ensystex II to eliminate all risks associated with the use of this product such as ineffectiveness or unintended consequences. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Ensystex II harmless for any claims relating to such factors.

DISCLAIMER OF WARRANTIES: Selier warrants that this product conforms to the chemical description in the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the Directions for Use under normal conditions of use. ENSYSTEX II MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, under abnormal conditions or under conditions not reasonably foreseeable by (or beyond the control of) seller or Ensystex II, Inc., and buyer assumes the risk of any such use.

LIMITATIONS OF LIABILITY: To the extent permitted by law, Ensystex II shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ENSYSTEX II AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ENSYSTEX II, THE REPLACEMENT OF THE PRODUCT.

This Conditions of Sale and Limitation of Warranty and Liability may not be amended by any oral or written agreement.

Isopthor is a registered trademark of Ensystex II, Inc.