



# PROTHOR SC 2

For use only by individuals/firms licensed or registered by the state to apply termiticide, turf maintenance and/or landscaping/ornamental 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.

For prevention or control of subterranean termites in and around residential, commercial, industrial, institutional and public structures and buildings.

For foliar and systemic control of insect pests of turfgrass, landscape ornamentals, shrubs and trees in lawns, golf courses, landscapes, playgrounds, parks, athletic fields and interior plantscapes.

Active Ingredient:	By Wt.
Imidacloprid .....	21.4%
Other Ingredients: .....	78.6%
<b>TOTAL:</b> .....	100.0%

Contains 2 pounds of imidacloprid per gallon

**Shake well before using**

EPA Reg. No. 83923-4 EPA Est. 81824-NC-001

**STOP – Read the label before use**

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

(PRECAUCION AL USUARIO: Si usted no puede leer o entender ingles, no use este producto hasta que 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 1-866-FOR-THOR (367-8467) or visit [www.for-thor.com](http://www.for-thor.com).

**NET CONTENTS: As marked on container**

Manufactured by:

**ENSYSTEX IV, Inc.**

Fayetteville, NC 28303

FIRST AID	
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rise slowly and gently with water for 15 to 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-866-367-8467 for emergency medical treatment information.	
NOTE TO PHYSICIAN	
No specific antidote is available. Treat the patient symptomatically.	

### PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

## CAUTION

Harmful if swallowed, inhaled or absorbed through skin. Causes eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing vapor. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash before reuse. Keep children and pets away from treated area until dry.

**Personal Protective Equipment for Termite Control Uses:** All pesticide handlers (mixers, loaders and applicators) must wear long-sleeved shirt and long pants, socks, shoes and chemical-resistant gloves made of waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyethylene, polyvinyl chloride or viton. After the product is diluted in accordance with label directions for use, shirt, pants, socks and water-proof gloves are sufficient protection. 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.

**Personal Protective Equipment for non-Termite Control Uses:** Applicators and other handlers must wear a long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves made of waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyethylene, polyvinyl chloride or viton.

**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 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 cleanup is completed.

### Environmental Hazards

This pesticide is highly toxic to aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

Extreme care must be taken to avoid runoff. Apply only to soil or other fill substrate that will accept the solution at the specified rate. Do not treat soil that is water-saturated or frozen or in any conditions where run-off or movement from the treated area (site) is likely to occur.

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.

The properties and characteristics of this chemical are similar to those of agrochemicals that have been detected in groundwater. Using this chemical in areas where the soil is permeable, and particularly where the water table is shallow (close to the ground surface), may result in contamination of the surrounding groundwater.

**Apply this product only as specified on this label.**

### 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, switch 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.

## 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 to prevent spillage. Do not put concentrate or dilute material into food or drink containers. Preferably store in a locked area.

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

**Container Disposal: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available.**

**In Case of Spill:** Confine it, avoid contact, isolate area and keep animals and unprotected persons away. If spill is liquid, form dike around spill area and/or absorb spill with absorbent materials, such as sand, cat litter or clay. If spill is dry powder only, sweep material into a suitable container. Place damaged package in a holding container and identify contents. Contact Ensys IV at 1-866-367-8467 or Chemtrec at 1-800-424-9300 for any assistance.

## APPLICATION FOR CONTROL OF SUBTERRANEAN TERMITES

### General

PROTHOR SC 2, 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 a structure and termite colonies in the soil. In order to establish a zone between the wood in the structure and the termites in the soil, adequately disperse the solution of this product in the soil.

To effectively control subterranean termites with this product, the service technician should be familiar with current subterranean termite control practices including trenching, rodding, sub-slab and void injection, soil surface fan spraying and excavated soil treatment. Correct use of these techniques is necessary to effectively control infestations by subterranean termites such as *Coptotermes*, *Heterotermes* and *Reticulitermes*. 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.

PROTHOR SC 2 is labeled for use against subterranean termites as a 0.05% to 0.10% solution in water. Generally, the 0.05% rate is used for typical control situations. When severe or persistent infestations are occurring, a 0.10% solution may be more appropriate. When difficult or problem soils or construction types are encountered, it may be necessary to use 0.10% PROTHOR SC 2 mixed in reduced volumes of water.

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 cisterns 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. Structures that contain wells or cisterns within the foundation of the structure can only be treated using the treated backfill method described in the treatment around wells and cisterns section of this label. 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.

### Dilution and Mixing of PROTHOR SC 2

Use rates for PROTHOR SC 2 are expressed and the solution is mixed according to the percentage (%) concentration it forms when mixed in water. Use the *Mixing Table for PROTHOR SC 2* or alternately the formulas below to determine the amount of PROTHOR SC 2 to add to any quantity of water.

To mix, measure out the required amount of PROTHOR SC 2 according to the *Mixing Table for PROTHOR SC 2*. Pour this amount of PROTHOR SC 2 into the spray tank as it is being filled with water with the agitator operating.

Mix PROTHOR SC 2 to create a use dilution in the following manner:

1. Fill tank 1/4 to 1/3 full.
2. 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 PROTHOR SC 2.
4. Add remaining amount of water.
5. Let pump run and allow recirculation through the hose for 2 to 3 minutes.

PROTHOR SC 2 may also be mixed into full tanks of water, but substantial agitation is required to ensure uniformity of the solution.

Mixing Table for PROTHOR SC 2

Solution Percentage Concentration Desired	Gallons of Finished Solution Desired	Fluid Ounces of PROTHOR SC 2 to add
0.05%	1	0.28
	2	0.55
	5	1.38
	25	6.90
	50	13.8
	100	27.5
	1000	138 (1 gallon + 10 ounces) 275.0 (2 gallons + 19 ounces)
0.10%	1	0.55
	2	1.10
	5	2.75
	25	13.8
	50	27.5
	100	55.0

### Calculating an Amount of PROTHOR SC 2 to Mix

To mix any amount of PROTHOR SC 2 determine:

A = Gallons of water into which PROTHOR SC 2 will be mixed. Express any partial gallons as decimal fractions (1/2 = .5).

Fluid ounces of PROTHOR SC 2 to add to A gallons for 0.05% = A x 0.275

Fluid ounces of PROTHOR SC 2 to add to A gallons for 0.10% = A x 0.55

Proportional Injector Mixing Table For PROTHOR SC 2

Solution Percentage Concentration Desired	Injector Volume (fluid ounces per gallon)
0.05%	0.3
0.10%	0.6

### 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 PROTHOR SC 2 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 0.05% to 0.10% solution at a rate of one gallon of solution per 10 square feet.

**Prescribed Vertical Barrier Rate:** Unless otherwise directed, vertical barriers are created by applying a 0.05% to 0.10% solution at a rate of four gallons of solution per 10 linear feet per foot of depth.

### 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 PROTHOR SC 2 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 PROTHOR SC 2 applied per 10 linear feet.

## PRE-CONSTRUCTION TREATMENT

### All Structures

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.

### Concrete Slab On Ground or Basements

Apply an overall treatment to the entire surface of soil or other substrate to be covered by the slab including areas to be under carports, porches, basement floors and entrance platforms. Apply solution uniformly at the Prescribed Horizontal Barrier Rate. If fill under slab is gravel or other coarse aggregate, apply at the rate of 1.5 gallons per 10 square feet or sufficient volume of solution to uniformly cover each 10 square feet. To provide a uniform treated zone in soil at critical areas such as along the inside of foundation walls, and around plumbing, bath traps, utility services, and other features that will penetrate the slab, apply solution at the Prescribed Vertical Barrier Rate to these areas.

After completion of grading, make an application by trenching or trenching and rodding around the slab or foundation perimeter and applying solution at the Prescribed Vertical Barrier Rate. Rodding may be done from the bottom of a shallow trench. When rodding, rod holes must be spaced in a manner that will allow for a continuous chemical treated zone to be deposited along the treated area (place holes 12 or fewer inches apart). Rod holes should not extend below the footing. When trenching, the trench along the outside foundation should be about 6 inches in width and 6 inches in depth. Use a low pressure spray (not to exceed 25 PSI) at the treatment tool when the valve is open) to treat the soil which will be placed into the trench after rodding. Mix the spray solution with soil as it is being placed in the trench. When treating voids in hollow masonry units, apply 2 gallons of solution per 10 linear feet of wall. Apply solution so it will reach the footing by injecting into the lower areas of the wall, just above the floor or footing.

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 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 and treat the soil at the Prescribed Vertical Barrier Rate 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. Rodding in trench followed by flooding of trench and treatment of backfill may provide a better chance of achieving a continuous treated zone than using soil rodding alone to establish a vertical treated zone.

#### Crawl Spaces

Application must be made by trenching or trenching and rodding downward along the inside and outside of foundation walls, around piers, interior supports in contact with the soil, plumbing, and utility services at the Prescribed Vertical Barrier Rate. Rodding may be done from the bottom of a shallow trench to the top of the footing or a minimum of 4 feet. When rodding, rod holes must be spaced in a manner that will allow for a continuous treated zone to be deposited along the treated area. Rod holes should not extend below the footing. When trenching, the trench should be about 6 inches wide and 6 inches deep. Use a low-pressure spray to treat soil which will be placed in the trench, mixing the spray solution with soil as it is being placed in the trench.

#### Hollow Block Foundations and Voids

Hollow block foundations or voids in masonry resting on the footing may be treated to create a continuously treated zone in the voids at the footing. Apply 2 gallons of solution per 10 linear feet to the lower part of the void so that it reaches the top of the footing or soil. Treatment of voids in 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 termiticide in locations other than those prescribed on this label must be cleaned up prior to leaving the application site (refer to Precautionary Statements). Do not allow people or pets to contact or to reoccupy the contaminated areas of the structure until the clean up is completed.

### 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 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.

#### 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.

Treat all existing cracks and cold, construction or expansion joints. Also, treat around bath traps, plumbing and utility services which penetrate the slab. Apply 4 gallons per 10 lineal feet per foot of depth to provide a uniform treated zone.

**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 the interior of the foundation wall or horizontally from the exterior through 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 traps.

**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 3 gallons of solution per square foot of soil.

#### Structures Containing Accessible Crawl Spaces

For crawl spaces, including sealed underfloor spaces that serve as heating and air conditioning plenums, 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.

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 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.

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

Subterranean termites can be prevented from constructing shelter tubes directly between the crawl space soil surface and overhead crawl space wooden members by the application of an overall treatment of the crawl space soil surface at the Prescribed Horizontal Barrier Rate using a 0.05% to 0.10% solution of PROTHOR SC 2.

PROTHOR SC 2 can be applied as a general fan spray within crawl spaces directly to swarming and exposed worker termites at the Prescribed Horizontal Barrier Rate using a 0.05% to 0.10% solution of PROTHOR SC 2.

Note: Overall treatments (treatments where chemical is applied more than 18 inches from the foundation walls, piers and pipes) should not be applied within a crawl space that serves as a plenum.

#### 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.
2. 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 crawl spaces used as plenums, turn off the air circulation system of the structure until application has been completed and all termiticide has been absorbed by the soil.

Note: Overall treatments (treatments where chemical is applied more than 18 inches from the foundation walls, piers and pipes) should not be applied within a crawl space that serves as a plenum.

#### 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 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 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 cisterns.

#### Structures with Wells/Cisterns Inside Foundations

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

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:

- a. 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 PROTHOR SC 2 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.
- c. After the treated soil has absorbed the solution, replace the soil into the trench.

#### 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.

1. 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.
3. 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

PROTHOR SC 2, in the form of a foam, can be used to deliver PROTHOR SC 2 as a termiticide any time it appears likely this form of delivery will improve the dispersal of PROTHOR SC 2 into and within the intended target area. Construction practices, soil subsidence and other factors may create situations in which a continuous treated zone cannot be achieved using conventional treatment alone. In these situations or wherever else it becomes necessary, conventional application methods can be supplemented through the use of foam (created by the use of foam generating equipment, or similar devices) to create a continuous treated zone. Foam can be particularly useful to deliver PROTHOR SC 2 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.

Depending on the circumstances, foam applications of PROTHOR SC 2 may be used alone or in combination with liquid solution applications, provided that the cumulative amount of active ingredient applied per unit of area is equivalent to that which would be applied according to a solution-only application at the recommended rate. At least 75% of the gallons of PROTHOR SC 2 must be applied as a typical liquid treatment. The remaining 25% or less gallons can be delivered to appropriate locations using a foam application. The application of the correct volume and amount of active ingredient are essential to the application of an effective treatment.

### Foam Mixing Instructions

6.90 ounces of PROTHOR SC 2 can be mixed with between 1 and 5 gallons of water and expanded to create 25 gallons of foam containing 0.05% active ingredient. 13.80 ounces of PROTHOR SC 2 can be mixed with between 1 and 5 gallons of water and expanded to create 50 gallons of foam containing 0.05% active ingredient. See the Foam Mixing and Expansion Table below for foam mixing and expansion ratios.

**Foam Mixing and Expansion Table (all mixes produce 0.05% active ingredient foam)**

Gallons of Foam Desired	Gallons of Water*	Amt. of PROTHOR SC 2 to Add to Water	Expansion Ratios
25	1.0	6.90 ounces	25:1
25	2.5	6.90 ounces	10:1
25	5.0	6.90 ounces	5:1
50	1.0	13.80 ounces	50:1
50	2.5	13.80 ounces	20:1
50	5.0	13.80 ounces	10:1

\*Add the foaming agent manufacturer's recommended amount of foaming agent to solution after water and PROTHOR SC 2 are mixed. Verify that the foaming agent is compatible with PROTHOR SC 2 before mixing or using with PROTHOR SC 2.

### Foam Application Use Directions

Using foam generating equipment, a solution of PROTHOR SC 2 (see Foam Mixing Instructions) may be converted into a predetermined amount foam according to the foaming agent and foaming equipment manufacturer's recommendations. Verify that the foaming agent is compatible with PROTHOR SC 2.

First, form a solution of PROTHOR SC 2 of the appropriate percentage concentration and volume (see Foam Mixing Instructions). Then add to the solution the recommended volume of foaming agent according to the foaming agent manufacturer's directions.

Foam 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. Use dispersion tips and application methods appropriate to the site. Always apply a sufficient volume of PROTHOR SC 2 in the form of a foam alone or in combination with a liquid solution to provide a continuous treated zone at the recommended rate for specific application sites.

## 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. Retreatment may be made as either a spot or complete treatment.

Retreatments in the absence of reinfestation or barrier disruption may be performed five or more years after a complete treatment was last applied to the structure. Such retreatments should be made based on the judgment of the applicator that such retreatment is necessary to ensure the continued protection of the structure from termite attack. In making such judgment, the applicator should take into account the expected useful life of the last treatment administered (based on efficacy testing) and conditions specific to the structure in question that may increase its vulnerability to attack.

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

## APPLICATION IN CONJUNCTION WITH BORATES AND TERMITE BAITS

Spot only applications of PROTHOR SC 2 can be used as a supplement to borate treatments and termite baiting system installations that are labeled for stand alone protection against termite attack. Stand alone product is defined as a product that is labeled for the protection of a structure when applied alone without the use of other termite control products. Spot only applications are defined as the use of PROTHOR SC 2 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 the application of a standalone product.

## 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 PROTHOR SC 2 treated soil around the components along the entire underground length of the component. First, treat soil through which components will be run with 0.05% to 0.10% solution of PROTHOR SC 2 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 0.10% 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

PROTHOR SC 2 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 0.05% to 0.10% solution of PROTHOR SC 2 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 TERMITE CARTON NESTS LOCATED IN ABOVE GROUND WALL VOIDS

Apply a 0.05% to 0.10% solution of PROTHOR SC 2 directly into above ground termite carton nests including nests located in wall voids using a directional injector. Apply as a solution or foam under pressure to distribute 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.

## EXTERIOR APPLICATION FOR ANT CONTROL

Apply a 0.05% to 0.10% solution of PROTHOR SC 2 to the exterior of the structure as a general surface, spot, crack and crevice or wall void treatment. Apply at points where ants may enter the structure or crawl and hide including exterior surfaces, around doors and windows, under eaves, attic and foundation vents, utility entrances and cracks in the surface of the structure. Spray solution or foam into voids where ants or their nests are present. Apply a volume of solution sufficient to cover the target surface(s) however avoid excess dripping or runoff from vertical or overhead surfaces.

Treat soil, turf or ground cover (flower, shrub and plant beds) adjacent to the structure where ants are trailing or may find food. Ants tunneling in the soil may be controlled by applying a 0.05% to 0.10% solution of PROTHOR SC 2 as a drench or soil injection along the edge of foundations or other hard surfaces such as driveways. Apply in a volume sufficient to treat or cover the soil or foliage.

Inject a 0.05% to 0.10% solution of PROTHOR SC 2 in the form of a spray or foam into tree cavities or other parts of trees where ant nests are located.

Do not treat more often than once per month. Do not allow residents or pets into the immediate area during application or allow them to make contact with treated areas until spray has dried.

It is recommended to remove or prune away shrubbery, bushes and tree branches touching the structure. Vegetation touching the structure may offer a route of entry for ants into the structure that allow ants to inhabit the structure without coming in contact with the treatment. If nests are found, direct treatment of nests with PROTHOR SC 2 can be made.

**Do not use PROTHOR SC 2 against native fire ants, imported fire ants, pharaoh ants or harvester ants. Limit applications for control of carpenter ants to treatment of non-wooden parts or surfaces of structures.**

## APPLICATION FOR TURF PESTS

PROTHOR SC 2 controls or suppresses a wide range of soil inhabiting turfgrass insect pests. PROTHOR SC 2 is not for use on turfgrass grown for sale (sod farms), commercial seed production or for research.

### Application Sites

Permitted sites include lawns, grounds and landscapes at and/or around residences including multi-unit, commercial, office and shopping buildings and complexes, recreational areas, playgrounds, athletic fields, golf courses, cemeteries, airports and parks.

### Application Timing

The active ingredient in PROTHOR SC 2, imidacloprid, has sufficiently long-lasting residual activity that applications can be made prior to egg laying by the target pest(s). Optimum control of turf pests will be achieved when application is made prior to egg hatch followed by sufficient irrigation or rainfall to move the active ingredient through the thatch and down into the underlying soil. Applications can be timed based on past experiences at the site or in the area, current results of adult monitoring/trapping or other methods.

If necessary, consult resources in horticulture in your area (such as your Cooperative Extension Service) to determine appropriate application timing.

### Post Application Watering and Mowing

Optimum control is achieved if irrigation or rainfall occurs within 24 hours after application. Uniformity of application may be adversely affected if turf is mowed prior to irrigation/rainfall occurring.

### Application Restrictions

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

Application should not be made to turf that is frozen, waterlogged or is saturated with water. Turf in this condition will not allow the necessary vertical distribution of the active ingredient down into the soil.

### Application Preparations

PROTHOR SC 2 can be mixed with other insecticides, miticides, fungicides and fertilizers. 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 Equipment and Methods

Apply the indicated amount PROTHOR SC 2 mixed in a volume of water sufficient to adequately distribute the active ingredient to the target area(s). Apply PROTHOR SC 2 solution as a spray of uniform, coarse droplets at a pressure low enough to eliminate drift from the target area. Properly calibrated application equipment must be used to apply PROTHOR SC 2.

### Turf Application Use Rates

Use Rate Table for PROTHOR SC 2 for Turf Applications	
Use Rate	Amount of PROTHOR SC 2 per 1,000 sq. feet
A	1.25 to 1.6 pt per acre or 0.46 to 0.6 fl oz (14 to 17 ml) per 1000 sq. ft..
B	1.6 pt per acre or 0.6 fl oz (17 ml) per 1000 sq. ft.

### Turf Application Volumes

The calculated amount of PROTHOR SC 2 can be applied in any volume of water as long as the maximum label rate 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 in excess of the maximum label rate.

## Turf Pests Grouped by Use Rates

Use Rate A: Larvae of: Annual bluegrass weevil, Asiatic garden beetle, Billbug, Black turfgrass atenioid, Cutworms (suppression only), European chafer, European Crane Fly, Green June beetle, Japanese beetle, Northern masked chafer, Oriental beetle, *Phyllophaga* spp., Southern masked chafer

Use Rate B: Chinch bug (suppression only), Mole Crickets

## Application Recommendations Against Specific Turf Pests

**Grubs, billbugs, annual bluegrass weevil and European crane fly:** Optimum control is obtained when application is made prior to egg hatch.

**Chinch bugs:** To maximize suppression, make application prior to the hatch of the first instar nymphs.

**Mole crickets:** Make application prior to or during the period of peak egg hatch. Apply an adulticide in conjunction with PROTHOR SC 2 if adults or large nymphs are present and tunneling at the time of application.

## FOLIAR AND BROADCAST APPLICATION FOR ORNAMENTAL PESTS

PROTHOR SC 2, applied to foliage and broadcast on the soil, controls a wide range of insects on trees (including non-bearing fruit and nut trees), shrubs, evergreens, flowers, foliage plants, ground covers and interior plantscapes. Non-bearing trees are perennial plants that will not produce a harvestable agricultural commodity within the next 12 months. PROTHOR SC 2 is not for use on plants being grown for sale, fruit, nut or commercial seed production or for research purposes.

PROTHOR SC 2 is a systemic insecticide meaning it will be translocated by the plant's vascular system from the roots up into the body of the plant. This means optimum effectiveness of PROTHOR SC 2 is realized when PROTHOR SC 2 is applied on or near a growing portion of the plant from which it can be translocated to other parts of the plant. Combining PROTHOR SC 2 with a nitrogen containing fertilizer may accelerate or otherwise enhance the uptake of the active ingredient into the plant.

Translocation of soil directed applications made to woody stemmed plants can be delayed by up to 60 days. Optimum levels of control are realized when applications are performed sufficiently prior to anticipated pest infestations.

### Application Sites

For use on ornamental plants including trees (including non-bearing fruit and nut trees), shrubs, evergreens, flowers, ground covers, bedding plants and foliage plants. Permitted sites include but are not limited to landscapes, forests (public and private), ornamental gardens, parks, lawns, grounds, golf courses and interior plantscapes at and/or around residences including multi-unit, commercial, office and shopping buildings and complexes, recreational areas, playgrounds, athletic fields, golf courses, cemeteries, airports and parks, public and private wooded and forested areas.

### Application Preparation

PROTHOR SC 2 can be mixed with other insecticides, miticides, fungicides and fertilizers. 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.

If necessary, consult resources in horticulture in your area (such as your Cooperative Extension Service) to determine appropriate application timing.

Do not apply through any irrigation system.

### Foliar Application

Foliar application of PROTHOR SC 2 offers local systemic activity against insect pests. Applications to plants with hard to wet foliage such as holly, pine or ivy should be applied in combination with a spreader / sticker.

### Ornamental Application to Control Ants

PROTHOR SC 2 can be used to indirectly control ants when applied to control aphids, scale insects, mealybugs and other sucking insects on ornamentals thereby limiting the amount of honeydew available.

### Foliar Application Volumes and Application Methods

Establish quantity of water necessary to uniformly wet foliage. Mix required amount of PROTHOR SC 2 (from the table below) in that quantity of water. Begin treatments prior to establishment of high pest populations. Reapply as needed.

Mixing Table for PROTHOR SC 2 for Foliar Applications
1.5 fl oz (45 ml) per 100 gallons of water.

### Ornamental Pests Controlled by Foliar Application

Adelgids, Aphids, Japanese beetles, Lace bugs, Leaf beetles (including elm and viburnum leaf beetles), Leafhoppers (including glassy-winged sharpshooter), Mealybugs, Psyllids, Sawfly larvae, Thrips (suppression), Whiteflies.

### Broadcast Application

#### Broadcast Application Use Rate

Use Rate Table for PROTHOR SC 2 for Broadcast Applications
0.46 to 0.6 fl oz (14 to 17 ml) per 1,000 sq. ft.

#### Broadcast Application Volume and Application Method

Mix required amount of product in a quantity of water sufficient to uniformly treat area. Use a minimum of 2 gallons of water per 1000 square feet. To achieve optimum control, irrigate treated area in order to incorporate treatment into upper level of soil. May be applied and incorporated into flowerbed soil before planting.

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 in excess of the maximum label rate.

#### Ornamental Pests Controlled by Broadcast Application

White grub larvae such as Japanese beetle larvae, Chafers, *Phyllophaga* spp., Asiatic garden beetle, Oriental beetle

## SOIL INJECTION AND SOIL DRENCH FOR ORNAMENTAL PESTS

PROTHOR SC 2, applied as a soil drench or soil injection, controls a wide range of insects on trees (including non-bearing fruit and nut trees), shrubs, evergreens, flowers, foliage plants, ground covers and interior plantscapes. Non-bearing trees are perennial plants that will not produce a harvestable agricultural commodity within the next 12 months. PROTHOR SC 2 is not for use on plants being grown for sale, fruit, nut or commercial seed production or for research purposes.

PROTHOR SC 2 is a systemic insecticide meaning it will be translocated by the plant's vascular system from the roots up into the body of the plant. This means optimum effectiveness of PROTHOR SC 2 is realized when PROTHOR SC 2 is applied on or near a growing portion of the plant from which it can be translocated to other parts of the plant. Combining PROTHOR SC 2 with a nitrogen containing fertilizer may accelerate or otherwise enhance the uptake of the active ingredient into the plant.

Translocation of soil directed applications made to woody stemmed plants can be delayed by up to 60 days. Optimum levels of control are realized when applications are performed sufficiently prior to anticipated pest infestations.

Applications to trees for the control of existing borer infestations may not prevent the eventual loss of the tree due to existing damage already caused by the pest and stress to the tree caused by the pest infestation.

### Application Sites

For use on ornamental plants including trees (including non-bearing fruit and nut trees), shrubs, evergreens, flowers, ground covers, bedding plants and foliage plants. Permitted sites include but are not limited to landscapes, forests (public and private), ornamental gardens, parks, lawns, grounds, golf courses and interior plantscapes at and/or around residences including multi-unit, commercial, office and shopping buildings and complexes, recreational areas, playgrounds, athletic fields, golf courses, cemeteries, airports and parks, public and private wooded and forested areas.

### Application Preparation

PROTHOR SC 2 can be mixed with other insecticides, miticides, fungicides and fertilizers. 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.

If necessary, consult resources in horticulture in your area (such as your Cooperative Extension Service) to determine appropriate application timing.

### Ornamental Pests Controlled by Soil Injection or Drench Application

Adelgids, Aphids, Armored scales (suppression), Black vine weevil larvae, Emerald ash borer, Eucalyptus longhorned borer, Flatheaded borers (including bronze birch borer and alder borer), Japanese beetles, Lace bugs, Leaf beetles (including elm and viburnum leaf beetles), Leafhoppers (including glassy-winged sharpshooter), Leaf miners, Mealybugs, Pine tip moth larvae, Psyllids, Royal palm bugs, Sawfly larvae, Soft scales, Thrips (suppression only), White grub larvae, Whiteflies.

### Soil Injection for Trees

Soil Injection is not allowed in Nassau and Suffolk Counties of New York

#### Soil Injection Use Rate for Trees

Use Rate Table for PROTHOR SC 2 for Soil Injection for Trees
0.1 to 0.2 fl oz (3 to 6 ml) per inch of trunk diameter (D. B. H.)

#### Soil Injection Volume and Application Method for Trees

Mix the calculated amount of PROTHOR SC 2 in the amount of water determined to be adequate for the treatment to be adequately dispersed. Apply at a low pressure according to one of the two following methods. Make a minimum of 4 injection holes per tree. For optimum control, maintain a high level of soil moisture in the treated area for 7 to 10 days after treatment.

Grid Injection: Evenly space holes on 2.5 foot centers in a grid pattern in the soil beneath the tree's branches/foliage out to the tree's drip line.

Basal Injection: Evenly space injection holes around the base of the tree no more than 12 inches from the tree.

### Soil Drench for Trees

#### Soil Drench Use Rate for Trees

Use Rate Table for PROTHOR SC 2 for Soil Drench for Trees
0.1 to 0.2 fl oz (3 to 6 ml) per inch of trunk diameter (D. B. H.)

#### Soil Drench Volume and Application Method for Trees

Mix the calculated amount of PROTHOR SC 2 in the amount of water determined to be adequate for the solution to be adequately dispersed. Apply solution at a rate of no less than 10 gallons per 1000 square feet around the base of the tree. If present, remove any barrier to the movement of the solution into the soil such as a plastic vapor barrier.

### Soil Injection for Shrubs

Soil Injection is not allowed in Nassau and Suffolk Counties of New York

#### Soil Injection Use Rate for Shrubs

Use Rate Table for PROTHOR SC 2 for Soil Injection for Shrubs
0.1 to 0.2 fl oz (3 to 6 ml) per foot of shrub height

#### Soil Injection Volume and Application Method for Shrubs

Mix the calculated amount of PROTHOR SC 2 in the amount of water determined to be adequate for the treatment to be adequately dispersed. Apply at a low pressure making a minimum of 4 injection holes per shrub. For optimum control, maintain a high level of soil moisture in the treated area for 7 to 10 days after treatment.

### Soil Drench for Shrubs

#### Soil Drench Use Rate for Shrubs

Use Rate Table for PROTHOR SC 2 for Soil Drench for Shrubs
0.1 to 0.2 fl oz (3 to 6 ml) per foot of shrub height

#### Soil Drench Volume and Application Method for Shrubs

Mix the calculated amount of PROTHOR SC 2 in the amount of water determined to be adequate for the solution to be adequately dispersed. Apply solution at a rate of no less than 10 gallons per 1000 square feet around the base of the shrub. If present, remove any barrier to the movement of the solution into the soil such as a plastic vapor barrier.

## RESTRICTIONS

Do not graze treated areas or use clippings from treated areas for feed or forage.

Avoid runoff or puddling of irrigation water following application.

Avoid application to areas in which penetration to the root zone is unlikely to occur such as areas that are waterlogged, saturated or frozen.

Do not apply to soil in areas where edible plants may be planted. Do not plant edible plants in soil that has been treated with PROTHOR SC 2.

## 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 must be followed carefully. However, because of manner of use and other factors beyond the control of Ensysyex IV, Inc., it is impossible for Ensysyex IV 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 Ensysyex IV harmless for any claims relating to such factors.

**DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, seller warrants that this product conforms to the chemical description on 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 IV 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 Ensysyex IV, Inc., and buyer assumes the risk of any such use.

**LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, Ensysyex IV 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 IV 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 IV, 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.

PROTHOR is a registered trademark of Ensysyex IV, Inc.

Revised 02/08

# Material Safety Data Sheet

## PROTHOR SC 2

Emergency Phone 1-800-424-9300 (Chemtrec)

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** PROTHOR SC 2

**CHEMICAL NAME:** Imidacloprid

**CHEMICAL FAMILY:** Chloro-nicotinyl insecticide

**COMPANY:** Ensysstex IV, Inc.

**ADDRESS:** 2713 Breezewood Ave., Fayetteville, NC 28303

**DAYTIME PHONE:** 1-866-367-8467

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

Imidacloprid 21.4% CAS# 138261-41-3

### 3. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW:** Caution. Harmful if swallowed or absorbed through the skin.

**PHYSICAL STATE:** Viscous liquid suspension

**ODOR:** Mild

**APPEARANCE:** Off white to light brown

**ROUTES OF EXPOSURE:** Inhalation, skin contact, skin absorption

#### IMMEDIATE EFFECTS

**EYE:** May cause eye irritation. Eye injury may persist for several days.

**SKIN:** Harmful if absorbed through skin. No skin irritation. Non-sensitizing.

**INGESTION:** Harmful if swallowed. Do not take internally.

**INHALATION:** Harmful if inhaled. Avoid breathing spray mist.

**POTENTIAL ENVIRONMENTAL EFFECTS:** Highly toxic to bees. Extremely toxic to aquatic and estuarine invertebrates.

### 4. FIRST AID MEASURES

**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. Call a poison control center or doctor for treatment advice.

**SKIN:** Take off contaminated clothing and shoes immediately. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

**INGESTION:** Call a poison control center or doctor immediately for treatment advice. Rinse out mouth and 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. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

**INHALATION:** 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.

**NOTES TO MEDICAL DOCTOR:** Treat symptomatically. There is no antidote.

### 5. FIRE FIGHTING MEASURES

**FLASH POINT:** >93°C / > 199 °F

**EXTINGUISHING MEDIA:** Water spray, Carbon dioxide, dry chemical powder or appropriate foam.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Hydrogen chloride gas, Nitrogen oxides.

**SUITABLE EXTINGUISHING MEDIA:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**FIRE FIGHTING PROCEDURES:** Isolate fire area. Evacuate downwind. Wear full protective clothing and self-contained breathing apparatus. Do not breathe smoke, gases or vapors generated. Keep out of smoke. Fight fire from an upwind position. Cool closed containers exposed to fire with water spray. Dike area to prevent runoff and contamination of water sources. Equipment or materials involved in pesticide fires may become contaminated.

### 6. ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTION(S):** Isolate and post spill area. Wear protective clothing and personal protective equipment as prescribed in Section 8, "Exposure Controls/Personal Protection". Keep unprotected persons and animals out of the area.

**METHOD FOR CLEANING UP:** Dike area to prevent runoff. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Clean contaminated floors and objects thoroughly, observing environmental regulations. Collect and transfer the product into a properly labeled and tightly closed container. Do not allow material to enter streams, sewers, or other waterways. You may contact Ensysstex III at 1-866-367-8467 for assistance if necessary. You may also contact Chemtrec at 1-800-424-9300 for assistance.

### 7. HANDLING AND STORAGE

**STORAGE PROCEDURES:** Store in a cool, dry, well-ventilated and preferably locked storage area. Keep out of reach of children and animals. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal. Store in original containers only. Keep storage container tightly closed.

**WORK/HYGENIC PROCEDURES:** Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove Personal Protective Equipment (PPE) immediately after handling this product. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.

**MIN/MAX STORAGE TEMPERATURES:** Do not store or transport above 38°C/100°F. 30 day average temperature not to exceed the recommended maximum.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**ENGINEERING CONTROLS:** General air replacement or dilution ventilation is sufficient for material handling and storage.

**PERSONAL PROTECTIVE EQUIPMENT:** Applicators and other handlers must wear long-sleeved shirt and long pants, chemical resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC) or viton and shoes plus socks (PPE). Follow manufacturer's instructions for cleaning/maintaining PPE. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

**USER SAFETY RECOMMENDATIONS:** Wash hands before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. 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.

**EXPOSURE LIMITS:** Glycerine CAS # 56-81-5 ACGIH TWA 10 mg/m3  
Form of exposure - Mist

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE:** Off-white to light brown

**PHYSICAL STATE:** Viscous liquid suspension

**ODOR:** Mild

**WATER SOLUBILITY:** Dispersible

### 10. STABILITY AND REACTIVITY

**STABILITY:** Stable under recommended storage conditions.

**CONDITIONS TO AVOID:** Exposure to moisture.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal decomposition products include hydrogen chloride (HCl), Hydrogen cyanide (hydrocyanic acid), Carbon dioxide (CO<sub>2</sub>), Carbon monoxide, nitrogen oxides (NO<sub>x</sub>).

## 11. TOXICOLOGICAL INFORMATION

The non-acute information pertains to the active ingredient.

**EYE EFFECTS:** Mild eye irritation (rabbits)

**DERMAL MALE/FEMALE RAT COMBINED:** LD50 > 2000 mg/kg

**SKIN SENSITIZATION:** No (guinea pig)

**SKIN IRRITATION:** No (rabbit)

**ACUTE ORAL TOXICITY MALE RAT:** LD50 > 4,870 mg/kg

**ACUTE ORAL TOXICITY FEMALE RAT:** LD50 > 4,143 mg/kg

**ACUTE DERMAL TOXICITY MALE/FEMALE RAT:** LD50: > 2,000 mg/kg

**ACUTE INHALATION TOXICITY MALE/FEMALE COMBINED RAT:** LC50 - 4-hr exposure to liquid aerosol: 5.33 mg/l (actual). LC50: 1-hr exposure to liquid aerosol: 20 mg/l (Extrapolated from 4 hr. LC50.)

**CHRONIC TOXICITY:** Imidacloprid caused thyroid and/or liver effects in chronic dietary studies in rats and dogs.

**CARCINOGENICITY:**

**IARC:** Not listed

**NTP:** Not listed

**OSHA:** Not listed

**REPRODUCTIVE TOXICITY:** In a two generation reproduction study in rats, imidacloprid was not a primary reproductive toxicant. Offspring exhibited reduced body weights at the high dose and in conjunction with maternal toxicity.

**DEVELOPMENTAL TOXICITY:** In developmental toxicity studies in rats and rabbits, there was no evidence of embryonic or teratogenic potential for imidacloprid. In both species, developmental effects were observed only at high doses and in conjunction with maternal toxicity.

**NEUROTOXICITY:** In acute and subchronic neurotoxicity screening studies in rats, imidacloprid produced slight neurobehavioral effects in each study at the highest dose tested. There were no correlating morphological changes observed in the neural tissues.

**MUTAGENICITY:** The imidacloprid mutagenicity studies, taken collectively, demonstrate that the active ingredient is not genotoxic or mutagenic.

## 12. ECOLOGICAL INFORMATION

**ENVIRONMENTAL PRECAUTIONS:** This pesticide is highly toxic to 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. Do not contaminate water when disposing of equipment washwaters.

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.

## 13. DISPOSAL CONSIDERATIONS

**GENERAL DISPOSAL GUIDANCE:** Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of at an approved waste facility in accordance with applicable Federal, state and local laws and regulations.

**CONTAINER DISPOSAL:** Follow advice on product label and/or leaflet.

## 14. TRANSPORT INFORMATION

**DOT CLASSIFICATION:** Not regulated.

**FREIGHT CLASSIFICATION:** Insecticides or Fungicides, N.O.I., other than poison

## 15. REGULATORY INFORMATION

**CERCLA REPORTABLE QUANTITY:** No components listed.

**SARA Title III – section 311/312 Hazard Categories:** Immediate health hazard

**Sara Title III – section 313 – Toxic Chemical Release Reporting:** None

## 16. OTHER INFORMATION

NFPA 704: (National Fire Protection Association)

Health - 1 Flammability - 1 Reactivity - 1 Others - none

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Revised 03/07