

5481-520

9/27/2005

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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

Mr. Jon C. Wood  
AMVAC Chemical Corp.  
4695 MacArthur Court, Suite 1250  
Newport Beach, CA 92660

SEP 27 2005

Dear Mr. Wood:

Subject: Amendment: Revise label wording and format  
Wisdom TC Flowable  
EPA Registration Number 5481-520  
Your submission dated July 7, 2005

Dear Mr. Wood:

The amendment referred to above, submitted in connection with registration under FIFRA section 3(c)(7)(a), is acceptable and a stamped copy of the label is enclosed for your records. The Agency understands that while the label wording and format have been modified to make your label language different from your competitors, you have stated in writing that there are no substantive changes to the previously approved labeling.

Sincerely,

George LaRocca.  
Product Manager 13  
Insecticide Branch  
Registration Division (7505C)

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# WISDOM™ TC FLOWABLE

Only State Licenced personnel or companies are permitted to apply Wisdom TC Flowable for controlling termites. Please check with your state agency to obtain the full requirements and qualifications necessary for personnel making application, prior to using this product. Some states may have more restrictive requirements regarding qualifications of persons for using this product.

To control pests indoors and outdoors on residential, institutional, public, commercial, and industrial buildings, lawns, public gardens, outdoor ornamentals, parks, recreational areas, athletic fields, interior landscapes and land adjacent to buildings.

### ACTIVE INGREDIENT:

Bifenthrin\* .....7.9%

**INERT INGREDIENTS** .....92.1%

**TOTAL** .....100.0%

\*Cis isomers 97% minimum, trans isomers 3% maximum.  
Wisdom TC Flowable contains 2/3 pound active ingredient per gallon.

**ACCEPTED**  
SEP 27 2005  
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 5481-520

## KEEP OUT OF REACH OF CHILDREN CAUTION

### FIRST AID

|                                |  |
|--------------------------------|--|
| <b>If swallowed:</b>           | <ul style="list-style-type: none"> <li>• Call poison control center or doctor immediately for treatment advice.</li> <li>• Have a 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 inhaled:</b>             | <ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</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 15-20 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 rinse slowly and gently with water for 15-20 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>  |

### EMERGENCY INFORMATION

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.  
FOR THE FOLLOWING EMERGENCIES, PHONE 24 HOURS A DAY:

Transportation: CHEMTREC.....1-800-424-9300  
Other: AMVAC.....1-323-264-3910

### 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.

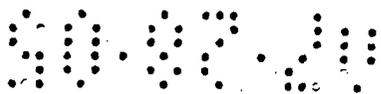
SEE SIDE/BACK PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS AND DIRECTIONS FOR USE.

EPA Reg. No. 5481-520  
EPA Est. No. \_\_\_\_\_  
Made in U.S.A.

Net Weight:  
As Marked on Container



4100 E. Washington Blvd.  
Los Angeles, CA 90023 U.S.A  
1-323-264-3910 • www.amvac-chemical.com



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## 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. Remove contaminated clothing and wash clothing before reuse.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves.
- Shoes plus socks.

After the product is diluted in accordance with label directions for use, and/or when mixing and loading using a closed spray tank transfer system (such as U-Turn<sup>®</sup>), or an in-line injector system, all handlers must wear:

- Shirt and pants.
- Shoes plus socks.
- Waterproof gloves.

In addition, all pesticide handlers must wear a respiratory protection device<sup>1</sup> when working in a non-ventilated space. All pesticide handlers must wear protective eyewear when working in non-ventilated space or when applying termiticide by rodding or sub-slab injection.

<sup>1</sup>Use one of the following 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 prefilter.

When treating in areas adjacent to an existing structure, the applicator must check the area to be treated 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 in 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, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters. 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 water-based dilutions of Wisdom TC Flowable to electrical conduits, motor housings, junction boxes, switch boxes or other electrical equipment due to a possibility and hazard of electrical shock.

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## DIRECTIONS FOR USE

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

Applicators **MUST NOT**:

Make broadcast applications of Wisdom TC Flowable inside of residential areas.

Apply Wisdom TC Flowable through aerial application.

Use Wisdom TC Flowable in nurseries, shadehouses, greenhouses (glasshouses), or lathhouses.

Apply Wisdom TC in any water pipelines, potable and non-potable. Chemigation is prohibited.

**DO NOT** use at the following sites: golf courses, sod farms or on grass raised for seed production.

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## GENERAL INFORMATION ON WISDOM TC FLOWABLE FOR TERMITE CONTROL

In establishing a barrier between the wood and the soil borne termites, it is essential to evenly distribute the Wisdom TC Flowable diluted emulsion within the treated soil to establish a thoroughly treated soil barrier. It is recommended that all non-essential cellulose containing materials and debris that may be able to support termite activity, be removed from areas adjacent to or within

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the structure including foundation walls, crawl spaces, porches, etc. Additionally, the elimination of any moisture sources that may be capable of attracting or supporting termites is recommended. Such moisture sources may include, but not be limited to leaks, in roofing or plumbing, incorrect grading, incorrectly flashed doors, windows and other such items. The finished grade that is adjacent to or in contact with structural wood should be treated as described in this label. Finished grade soil should be at a level above that is below the lowest wood member, such as the sill plate of the structure.

It is essential that the service technician be trained in or otherwise experienced with current termite control practices including: trenching, rodding, sub-slab injection, treatment of soil surfaces, crack and crevice (void) injection, treated back filled method and direct wood applications including brush, spray or foam applications to wood that is otherwise vulnerable or infested (otherwise, an effective insecticidal barrier may not be formed with this product). The service technician must properly utilize these techniques in preventing or managing infestations by subterranean termites (both Eastern and Western subterranean termites) such as in the genera *Coptotermes*, *Heterotermes*, *Reticulitermes* and *Zootermopsis*. Service personnel should consider the biology and behavior of such termites when assessing which management techniques to employ in dealing with or avoiding the termite infestation.

When choosing control techniques, the service technician should also consider other factors that may affect the treatment methods such as the building design, placement of ventilation, heating, and air handling system (HVAC), local water table, compaction and soil type, grading and nature of drinking water supply and location of service utilities.

Local conditions may affect the choice of the appropriate control techniques utilized. Structural pest control, regulatory and state cooperative extension agencies may provide advice concerning specific area conditions and their effects on the choice of appropriate control practices.

## USE DIRECTIONS FOR SUBTERRANEAN TERMITE CONTROL

**Definition of Critical Areas:** The following are considered Critical Areas when using this product: cracks and expansion joints, utility penetration points within the foundation or slab, bath traps and attached masonry or slab areas including attached porches, stairs, patios, garages and slab additions.

**Note:** When using this product, crawl spaces are considered to be inside of the structure being treated.

### 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 (Applicators should also refer to their state regulations regarding the treatment of structures containing a well or cistern):

1. The Treated Backfill Method - Do not treat soil while it is beneath or within the structures 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 a rate of 4 gallons of dilute emulsion per 10 linear feet per foot of depth of the trench (note the trench should not exceed 6 inches in width), or 1 gallon emulsion per 1.0 cubic feet of soil. See "Mixing Directions" 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 diluted emulsion, replace the soil into the trench.
2. Treat infested and/or damaged wood in place using an injection technique such as described in the "Control of Wood Infesting Insects" section of this label or foam and other suitable applications methods.

**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. (Applicators should also refer to their state regulations regarding the treatment of structures containing a well or cistern):

1. Prior to treatment, if feasible, expose the water pipe(s) coming from the well to the structure, if the pipe(s) enter the structure within 3 feet of grade. (Note: your state regulations may require a specific treatment method in some situations)
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 soil type and degree of compaction should be taken into account in determining the depth of treatment.
3. Where appropriate (i.e., on the water side of the structure), the treated backfill method (described above) can also be used to reduce the hazard of offsite movement of termiticide.

Before using this method of application, please check with your local or Federal agencies for specific local information and regulations regarding these application methods.

**Application Rate:** Dilute 1.0 oz of Wisdom TC Flowable per 127 oz of water (0.06% a.i.) for controlling subterranean termites. Please refer to rates elsewhere in the label for other pests.

**Mixing Directions:** Wisdom TC Flowable is properly mixed in by filling the termite rig tank approximately 1/4 to 1/3 full. Start the pump to begin by-pass agitation and place end of treating tool in tank to allow circulation through hose. Add appropriate amount of Wisdom TC Flowable. Add remaining amount of water. Let pump run and allow recirculation through the hose for 2 to 3 minutes to assure that the emulsion is sufficiently mixed.

Wisdom TC Flowable can be mixed in large spray tanks that are equipped with mechanical or hydraulic agitators which will allow proper suspension of the termiticide emulsion.

**Dilution Rate:** Mix 1 gallon of Wisdom TC Flowable in 127 gallons (or 3 qt in 99.25 gallons) of water to obtain 0.06% a.i. spray emulsion.

Table-I provides specific mixing ratios for Wisdom TC Flowable to prepare various spray quantities.

| Table-I: Spray Dilution Table     |                               |  |                   |
|-----------------------------------|-------------------------------|--|-------------------|
| Target Spray Concentration (a.i.) | Target Spray Volume (gallons) | Quantity of Wisdom TC Flowable Concentrate | Quantity of Water |
| 0.06%                             | 1                             | 1 oz.                                      | 127 oz.           |
|                                   | 5                             | 5 oz.                                      | 4.9 gal.          |
|                                   | 10                            | 10 oz.                                     | 9.9 gal.          |
|                                   | 50                            | 1.5 qt.                                    | 49.6 gal.         |
|                                   | 100                           | 3 qt.                                      | 99.25 gal.        |
| 0.12%†                            | 1                             | 2 oz.                                      | 126 oz.           |
|                                   | 5                             | 10 oz.                                     | 4.9 gal.          |
|                                   | 10                            | 19.5 oz.                                   | 9.8 gal.          |
|                                   | 50                            | 3 qt.                                      | 49.2 gal.         |
|                                   | 100                           | 6 qt.                                      | 98.5 gal.         |

Conversion Information:

1 oz = 29.57 mL = 2 tbsp = 6 tsp

1 gallon = 4 quarts = 128 oz

**Calculation for Determining % A.I. concentration in Spray Emulsion:** Use the following formula to determine the percent a.i. in the spray final emulsion:

†Use this concentration for foam or underground service application when treating for termites.

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$$\text{Percent A.I. in Spray Emulsion} = \frac{(7.9) \times (\text{oz of Wisdom TC Flowable})}{(\text{Total Volume of Spray Emulsion in gallons}) \times (128)}$$

**Adjustment of Spray Application Volume:** To provide maximum control and protection against termite infestation, apply the specified volume of the finished water emulsion and active ingredient as set forth in the directions for use section of this label. Due to various reasons, the soil may not adequately accept the label volume of emulsion. If soil will not accept the labeled application volume, the volume may be reduced provided there is a corresponding increase in concentration so that the amount of active ingredient applied to the soil volume remains the same.

**Note:** Large reductions of application volume may reduce the ability to obtain a continuous barrier. Variance is allowed when volume and concentration are consistent with label directed rates and a continuous barrier can still be achieved.

Under certain conditions for both pre and post construction termite treatments, the concentration of active ingredient may be reduced by half the recommended label rate as per the spray volume adjustment guideline (Table-II) below. However, when spray volume is reduced, the hole spacing for sub slab injection and soil rodding may require shorter spacing to adjust to smaller volume for each hole, to assure sufficient soil distribution in the soil type being treated.

**PRE-CONSTRUCTION SUBTERRANEAN TERMITE TREATMENT**

| Table-II: Spray Volume Adjustment Guideline         |   |                         |
|---|---|-------------------------|
| Type of Application                                 | Final Concentration in Application Emulsion |                         |
|   | 0.06% (a.i.)                                | 0.12% (a.i.)            |
|   | Volume Allowed (gallon)                     | Volume Allowed (gallon) |
| Vertical Treatment (gallons emulsion/ 10 lin. Ft.)  | 4.0   | 2.0                     |
| Horizontal Treatment (gallons emulsion/ 10 sq. ft.) | 1.0   | 0.5                     |

**After Treatment:** All holes in commonly occupied areas into which Wisdom TC Flowable termiticide emulsion has been applied must be adequately sealed. Plugs used to seal treatment holes must be of a non-cellulose material or covered by an impervious, non-cellulose material.

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.

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 make the treatment by trenching the soil immediately adjacent to the foundation into the trench. Trenches may be made to treat 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 bottom of the footing.

**Use Directions:**

In order to obtain efficacious subterranean termite control, vertical and or horizontal insecticide barriers with Wisdom TC Flowable emulsion at 0.06% a.i. should be established with the proper treatment spray volume and hole spacing. Please review and follow the most current Housing and Urban Development Minimum Property Standards Publication to meet the termite proofing requirements and refer to your local termite treatment regulations. The two types of barriers are described below:

a) Horizontal Barriers:

Horizontal Barriers are needed when underlying soil will be covered by building structures such as: concrete footings, concrete slabs, patios, carports, porches, areas under stairs and sub-surface crawl spaces.

Apply Wisdom TC Flowable emulsion at the rate of 0.06% a.i. (1 ounce in 127 oz water) and treat at the rate of 2 gallons per 20 square foot area. Treatment volume may be adjusted as per Table-II (not less than 1 gallon or more than 4 gallons per 20 sq. ft); this will ensure a continuous barrier for the structure. In case the treated area to be treated is covered by coarse gravel or other porous substances, care should be taken to ensure that the spray volume penetrates this layer and sufficiently saturates the soil below by increasing the volume of emulsion applied. Applications should be made at

pressure not to exceed 50 psi and the spray nozzle should be a coarse, flat fan or cone fan pattern. For new construction, in case the concrete slab which is to be poured after such a treatment, it is required that the treated soil/ area be covered with adequate plastic sheeting or water-proof polyethylene sheets (not necessary if the foundation walls have already been erected around the treatment zone).

b) Vertical Barriers:

In areas, such as back-filled foundation walls, front and back of building foundations, electrical/ cable/ plumbing or other utility entry points, it is important to establish vertical barriers to prevent termite entry. Vertical barriers may be made by applying 0.06% a.i. Wisdom TC Flowable emulsion. Apply 8 gallons per 20 linear feet (0.4 oz/linear foot) per foot of depth up to four feet deep but not below the top of the footing. Water volume can be adjusted as per Table-II (not less than 4 gallons or to exceed 16 gallons), to create an effective vertical barrier.

**Application Precautions:**

- 1) Always ensure that the treatment emulsion reaches the top of the footing to be treated (trenching or trenching and rodding into the trench). Always space rod holes such that an unbroken termiticide barrier can be established, however; in no case should the holes be spaced greater than 1 foot (12") apart.
- 2) Ensure that trench and rodding treatment emulsions do not undermine or wash out the soil in the area beneath or surrounding the footings.
- 3) The width of the trenches should not exceed 1/2 foot (6"). Trenched soil should be thoroughly treated as it is being replaced into the trench.
- 4) For continuous slabs (such as monolithic slabs), interior vertical barriers may not be needed. Good horizontal barriers may be adequate. Always refer to local regulations regarding treatment requirements.
- 5) In case of hollow block voids, the area may be treated at the rate of 4 gallons of spray per 20 linear feet. Ensure that the spray adequately covers the top of the footings, as well.

**NOTIFICATION ADVISORY:**

Prior to pre-construction treatment, applicators must notify the general contractor, construction superintendent or similar responsible individual, 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 applied Wisdom TC Flowable emulsion is absorbed into the soil.

**POST CONSTRUCTION TERMITE CONTROL**

General: For post-construction subterranean (both Eastern and Western) termite control, use 0.06% a.i. termiticide emulsion (1 oz Wisdom TC Flowable in 127 oz of water). Approved application methods include: injection, trenching and rodding into the trench; trenching or spraying with a flat-fan or coarse fan spray nozzle under low pressure (not to exceed 25 psi). Do not wash soil out in areas surrounding the footings. Termiticide emulsion may also be applied as a foam and used to treat voids beneath slabs, behind masonry veneers, around plumbing lines and other similar areas.

Before treatment, ensure where the water wells, radiant heat pipes, utility entry points, conduits, water and sewage pipes, sprinkler systems, etc. are located. It is important that these points not be affected or damaged during the treatment process.

**Foundations:** For applications made after the final soil grade has been established, 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 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 at the labeled rate to a depth not to exceed four feet. The actual depth of treatment will vary depending on soil type, degree of compaction, and location of termite activity. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. However, in no case should a structure be treated below the footing and care should be taken to avoid undermining the footing as a result of termiticide treatment.

**POST-CONSTRUCTION SLAB TREATMENT:**

- a) Vertical Barriers: Establishment of vertical barriers may be done by the process of injecting below the slab inside the structure, as necessary. Treatments may be made by drilling a sufficient amount of holes to create treatment or injection points within the slab. Trenching outside or trenching and rodding into the trench may also be done. Use rate is 8 gallons per 20 linear feet (0.4 gallon spray/ linear foot). Ensure even distribution along the sides of the footing but not below the footing. Care should be taken to thoroughly treat the trenched soil as it is replaced within the trench.

Treatment should always be made on the outside of foundation walls and if needed, under the slab inside the foundation

structure. Depending on the infestation or location, treatment under the slab along both sides of a load bearing or support walls may be required, along with the treatment of the interior partition walls; cracks and crevices; and expansion joints. Interior partition walls may be treated by drilling along one side as these types of walls are not supported beneath the slab by footing.

- b) **Horizontal Barriers:** These can be created where needed by the process of long rodding or by vertically injecting termiticide spray emulsion in a geometric grid pattern as necessary. Additionally, if a sub slab void is expected, such voids may be effectively treated by the application of foam. Wisdom TC Flowable emulsion may be applied as a foam utilizing a variety of foaming agents and foam application equipment. Refer to foaming agent and foam equipment manufacturer's use directions and recommendations when such applications are made.

**Application Precautions:**

1. Ensure a continuous insecticide treated zone by drilling holes into the slab and/ or foundations and making applications of Wisdom TC Flowable emulsion into these treatment holes.
2. For treating foundations 12" or less, create a trench 6" wide along the outside of the foundation exterior wall, do not disturb soil under the footing. Treatment emulsion should be applied by rodding and as a coarse spray into the trench at the rate of 8 gallons of spray per 20 linear feet (0.4 gallon spray/ linear foot). Mix and incorporate as the soil is put back into the trench, to assure a thorough treatment of trenched soil has been made.
3. Foundations that exceed 1 foot depth, follow use recommendations for basement treatments (see below).
4. In bath traps where soil and wood is exposed, Wisdom TC Flowable may be applied at the rate of 0.06% a.i. These areas may also be treated by foam applications.

**TREATMENT OF BASEMENTS WITH WISDOM TC FLOWABLE:** When footing depth exceeds a depth of 12" inches to the top of the footing it is considered as a "basement treatment". Applications should be made by using the following: by trenching and rodding into the trench or by trenching. Use rate is 8 gallons of spray emulsion per 20 linear feet (0.4 gallon spray per linear foot). Rodding may be done into the bottom of the trench but rodding depth should not exceed a depth of four feet or to the top of the footing, which ever is less.

When the footing is more than 4 feet in depth (below soil grade), trenching and rodding into the trench, or trenching along the foundation walls should be done. Rodding injection points should be made to assure a thorough and unbroken termiticide barrier treatment. Care should be taken to thoroughly treat the trenched soil as it is replaced into trench, to assure a consistent treatment is made to the trenched soil. The space between rod and injection holes should not exceed 12 inches depending upon the compaction and consistency of the soil. Use rate should be calculated for 4 feet of depth (maximum). However, the actual depth of the treatment (and the barrier zone) will vary depending on soil type, soil compaction status and proximity to the termite infestation or activity. Do not treat below the footer under any circumstances. Sub slab injection through holes that are properly spaced may be required inside the foundation and the foundation walls, cracks and joints, around conduits, utility pipes, etc. and along both surfaces of the inside of footings that support walls. Care should be taken to assure that the treatment emulsion does not penetrate the foundation wall into the basement. Significant cracks in the foundation may be sealed before treatment or these areas may be treated using the treated backfill method, if necessary, to avoid termiticide emulsion from leaking through the foundation.

**Accessible Crawl Spaces:** Termites may be active in crawl space areas. When treating accessible crawl spaces apply vertical termiticide barriers at the rate of 8 gallons of Wisdom TC Flowable emulsion per 20 linear feet; per foot of depth from grade to the top of the footing. If the footing is more than 4 feet below grade, treat to a minimum depth of 4 feet. Apply by trenching and rodding into the trench, or trenching alone if practicable, depending upon the depth necessary to properly treat to the top of the footing. Treat both sides of foundation wall and around all support piers that termites might use to tunnel to access structural timbers within the structure. Areas around plumbing and other utility penetrations within the foundation walls should be carefully treated as necessary. Where physical obstructions such as concrete walkways adjacent to foundation elements prevent trenching, treatment may be made by drilling such attached slabs or by rodding. 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. Care should be taken to avoid undermining the footing as a result of treatment. 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 top of the footing, (whichever is less), and not be wider than 6

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inches. When trenching in sloping soil, the trench must be stepped in such a fashion that the termiticide treatment emulsion will not run down to the lowest portion of the trench. This may be accomplished by tiering or stepping the trench such that each section of the tiered trench includes a dammed portion to hold the termiticide emulsion in that section of the trench. This will ensure adequate distribution and prevent the termiticide from running off. The emulsion must be mixed with the soil, as it is replaced into the trench.

4. 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. The treated backfill method should be considered in areas where contamination is a concern.

**Inaccessible Crawl Spaces:** For inaccessible interior areas, such as areas where there is insufficient clearance between floor joists and the ground surfaces to allow operator access, or there is no entry way into the crawl space area, it may be necessary to create an access for treatment. Such an access may require the excavation of soil to allow for adequate treatment of the area or the installation or creation of a crawl space entry way. Treatment may be made according to the instructions for accessible crawl spaces. Otherwise, apply one or a combination of the following two methods:

1. Establish a horizontal barrier. Apply to the soil surface: 2 gallons of emulsion per 20 square feet overall, using a nozzle pressure of less than 25 p.s.i. and a coarse fan spray pattern application nozzle (e.g., Delavan type RD Raindrop, RD-7 or larger, or Spraying Systems 8010LP TeeJet or comparable nozzle). For an area that cannot be reached with the application wand, extension rods may be used to make the application to the soil. Do not broadcast or powerspray with higher pressures.
2. Establish a horizontal barrier. Drill through the foundation wall or through the floor above; and treat the soil perimeter at a rate of 2 gallons of emulsion per 20 square feet. Drill spacing must be at intervals not to exceed 16 inches. Many states may have specific requirements on treatments. Applicators should refer to their local state regulations regarding termiticide treatments.

When treating plenums and 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. Avoid introduction of termiticide emulsion into plenums and air flow systems.

**Masonry Voids:** Termites may travel and tunnel undetected within masonry voids found in hollow block and behind brick or stone veneer to gain access to structural lumber. It may be necessary to treat these areas if termite activity is suspected or detected in these areas. Additionally, some states may require specific treatment measures regarding these areas. Applicators should refer to their local state treatment regulations. Masonry voids may be treated by drilling and treating into the voids in multiple masonry elements of the structure to prevent or control termite activity or access through these areas. Void applications should be made at the rate of 4 gallons of emulsion per 20 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. Generally, the void found behind brick or stone veneer may be less than one inch wide but sufficient for termites to enter the structure. The applicator should be careful when drilling such veneers for treatment and ensure that the drilling does not penetrate the wall beyond the veneer. 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. Masonry voids may be effectively treated with foam applications, refer to foam instructions below.

Care should be taken to avoid excess liquid application when treating masonry voids and to avoid leaks of treatment emulsion into the structure. All leaks resulting in the deposition of termiticide in locations other than areas to be treated, should be cleaned up immediately using adequate measures. Do not allow people or pets to contact contaminated areas or to reoccupy the contaminated areas of the structure until clean-up is completed.

**Note:** In cases where a brick, stone or other masonry veneer is present and treatment is necessary behind such veneer, ensure that the drill bit does not extend beyond the veneer. However in the presence of concrete blocks behind the veneer, drilling and spraying into both the block and the veneer can be done simultaneously.

**DO NOT** apply emulsion to treat voids insulated with rigid foam insulation.

In areas where treatment with Wisdom TC Flowable is difficult because of limited access such as alongside fieldstone or rubble or faulty foundation walls, areas surrounding water and sewer pipes, and utility supply lines that go below the structure to water wells or ponds, treatment may be done by means of the treated backfill method as detailed below:

1. First, trench and pile the soil to be treated on or in a non-porous tarp, polythene sheeting or other such material.
2. Treat the soil with termiticide emulsion directly on to the soil at a use rate of 8 gallons per 20 linear feet/ foot depth of the trench. Thoroughly mix and incorporate, ensuring that the termiticide emulsion does not run off the sheeting or tarp.
3. Replace the treated soil back into the trench after the spray emulsion has been properly absorbed into the soil matrix.

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PPE Advisory:

When treating in confined, non-ventilated spaces, applicator should wear air-tight goggles, as well as a NIOSH- approved respirator.

**USE DIRECTIONS FOR SPOT TREATMENTS AND LOCALIZED APPLICATIONS**

**Foam Applications:** Foaming and foaming equipment allow the applicator to treat areas where hidden voids may exist. The foamed termiticide emulsion effectively covers the areas to be treated and is capable of wrapping thoroughly around various unseen obstacles that may otherwise deflect liquid, thus making a superior and more thorough application in some circumstances. The Wisdom TC Flowable emulsion may be converted to a foam and the foam used to control or prevent termite infestations. Wisdom TC Flowable formulation can be used at a rate of 0.06% a.i. to 0.12% a.i. with appropriate application equipment that will allow from 1 to 2 expansion up to 1 to 40 expansion.

Depending on the circumstances, foam applications may be used alone or in combination with liquid emulsion applications. Applications may be made behind veneers, piers, chimney bases; into rubble foundations, into block voids or structural voids, under slabs, stoops, porches, or to the soil in crawl spaces, and other similar voids that liquids may not be expected to adequately treat.

Foam and liquid applications must be consistent with volume and active ingredient instructions in order to insure proper application has been made. The volume and amount of active ingredient are essential to an effective treatment. At least 75% of the labeled liquid emulsion volume of product must be applied, with the remaining percent delivered to appropriate areas using foam application. Refer to label and use recommendations of the foam manufacturer and the foaming equipment manufacturer.

Generally speaking, foam treatments provide supplemental control of termites in difficult or hard-to-reach areas. However, foam treatments may also be used alone under such conditions.

**TERMITE PREVENTION OR CONTROL UNDER SLABS OR SOIL IN CRAWL SPACES:**

Wisdom TC Flowable may be used alone or in combination with spray treatments. To create a vertical barrier, ensure that at least 8 gallons of 0.06% a.i. concentration be used for each 20 linear feet (0.4 gallons of spray/ linear foot). This equates to 8 oz of Wisdom TC Flowable concentrate. For creating a horizontal barrier, use at least 2 gallons of 0.06% a.i. concentration per 20 sq ft (or 0.1 gallon/ sq ft), this equates to 2 oz of Wisdom TC Flowable per 20 sq ft or 0.1 oz/ sq ft. Application should be made either as a liquid or foam or a combination of the two methods. For a foam only treatment, apply 8 oz of Wisdom TC Flowable concentrate per 20 linear feet (0.4 oz/ ft), or 2 oz per 20 sq ft (0.1 oz/ sq ft) in sufficient foam volume. As an example, 4 gallons of 0.12% emulsion converted into a foam to cover 20 linear feet will be equal to treating at the rate of 8 gallons of spray as a 0.06% a.i. per 20 linear feet (0.4 gallon spray/ linear foot). Treatment should also be made around the base of any support piers if present within a crawl space and around the perimeter exterior of the structure whether it is a crawl, basement or slab type construction. Refer to the instructions listed above and follow your local state treatment regulations.

**CONTROL OF PESTS DWELLING UNDER SLABS:**

Pests such as ants, cockroaches, crickets, millipedes, scorpions, spiders and other arthropods dwelling under the slab, may be controlled by drilling and injection or by using the horizontal rodding method. Inject 2 gallons of Wisdom TC Flowable formulation at 0.06% a.i. or 0.12% a.i. per 20 sq. ft (0.1 gallon/ sq.ft) or 4 gallons of spray emulsion per 20 linear feet (0.2 gallon/ linear ft). Should the presence of a sub-slab void be suspected, the applicator may wish to consider a foam treatment of such areas.

**TREATMENT AND ESTABLISHMENT OF SAND BARRIERS WITH WISDOM TC FLOWABLE:**

Cracks and crevices in basements or foundations should be filled in with masonry sand or similar sand that has been treated with the recommended "soil treatment" rates and guidelines. Termites have the capacity to build mud tubes even over treated surfaces. It is important that all soil in the treatment area be thoroughly treated with Wisdom TC Flowable.

Re-treatment for subterranean termites may 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 disturbed or re-infested areas may be re-treated in accordance with application techniques described in this product's labeling. The timing and type of these re-treatments 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 re-treatment of the structure is prohibited unless there is clear evidence that reinfestation or barrier disruption has**

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occurred. Annual or periodic re-inspection of the structure is recommended to detect the presence of termite activity.

**TERMITE CONTROL PROGRAM IN COMBINATION WITH BAIT SYSTEM PRODUCTS:**

Wisdom TC Flowable may be used as part of an Integrated Pest Management (IPM) program and in conjunction with various termite bait products or systems. Spot or complete barrier treatments may be made to many critical regions of building structures such as the water and sewer lines, utility entry points, bath traps, foundation cracks and crevices including expansion joints or general vicinities that harbor suspected infestations. Use at the rate of 0.06% a.i. spray emulsion. Please read elsewhere in this label use directions and guidelines which cover post-construction treatments.

**Specific Use Directions:**

Underground utility installations such as electrical wiring, cables, utility pipes, conduits, junction boxes, etc. may be treated inside or outside the structures located in rights-of-way or roadsides. This is to protect long range installations of such services against pest damage including termites and ants.

- Soil may be treated with Wisdom TC Flowable at the rate of 0.06% to 0.12% a.i. spray emulsion as a preventative measure.
- Treat at the rate of 4 gallons per 20 linear feet (0.2 gallon/ linear feet) of spray emulsion and allow the soil to absorb the product. Utility pipes, cables, conduits, etc. can then be laid over the treated soil and covered with fill soil to a height of 2 inches (approximately). Treat this fill soil with the same concentration and rate as described above, to create a treatment barrier. In wide trenches, only the area and soil surrounding the service lines should be treated. The creation of a continuous (unbroken) barrier of treated soil surrounding the services is important for effective preventive control.
- In areas where the soil is too porous and therefore cannot handle the recommended spray volume (0.2 gallon/ linear foot), Wisdom TC Flowable may be used at the rate of 2 gallons per 20 linear feet (0.1 gallon/ linear ft) for both the bottom and top of the trench.
- The trench should be closed up with Wisdom TC Flowable treated soil. In areas where the installations emerge outside from the ground, the area may be treated by the trenching and/or rodding by, injecting no more than 1 to 2 gallons of spray emulsion per location as described above.

Advisory: Avoid the hazard of electrical shock. DO NOT treat live electrical or other live utility cables or wires.

**USE DIRECTIONS - ABOVE GROUND TERMITE CONTROL**

Wisdom TC Flowable may be applied in the manner described below to control termite worker or winged reproductive forms that are present when treatment is required. These treatments only supplement and should not be substituted for other termite control methods such as mechanical alterations (replacement), soil treatment or foundation/ slab treatments.

For controlling termite workers and winged reproductive forms, dilute 1.0 oz Wisdom TC Flowable per a gallon of water and make applications with a sprayer equipped with an appropriate application tip including but not limited to a fan, pin stream or crack and crevice nozzle. Application rate should be 1 gallon/ 1000 sq ft. Areas that can be sprayed include: attics, crawl spaces, unfinished basement areas, as well as other places where significant void spaces exist. Directly apply onto swarming termite populations as well as spaces that they aggregate.

For controlling termites above ground in specific localized areas of infested wood, dilute Wisdom TC Flowable at the rate of 1.0 oz/ gallon of water and apply either as a coarse fan spray or as foam treatment injected into structural voids, termite galleries as well as space between wooden structural members. Area between the sill plates and foundations where wood makes contact is particularly vulnerable to termite attack and should be treated. Applications can be made into non-accessible spaces by drilling followed by injection of Wisdom TC Flowable with a proper directional injector into the infested wood or structural void spaces. Holes drilled for the purposes of termite treatment should be plugged with non-cellulose plugs after treatment. For controlling termite carton nests inside building void spaces, dilute Wisdom TC Flowable per gallon of water and apply as a liquid or as a foam equipped with a sharp injection tool. Multiple injection holes set at varying depths may be necessary for obtaining control. If possible, carton nest material should be extracted and destroyed soon after treatment.

**TREATMENT OF WOODEN POSTS, POLES OR SIMILAR INSTALLATIONS:**

The aim is to establish an insecticidal barrier in the soil that contacts wooden structures of installations such as roadway signs, fences, landscape installations etc. Use Wisdom TC Flowable at the rate of 0.06% a.i. spray emulsion.

Existing roles and posts can be treated by using suitable equipment for sub-surface injection or fed through gravity flow into holes surrounding the structure or bottom of the trench. Ensure that all sides are treated to establish an unbroken insecticidal barrier around the structure. Apply 1 gallon spray emulsion (0.06% a.i.) per foot depth for poles and posts that are equal to or less than 6" in diameter or 6" square. Poles and posts that exceed 6" diameter (or 6" square) apply at the rate of 1.5 gallon per foot depth. Treat to a depth of 6" below the bottom of the post or pole. Larger structures should be treated at a rate of 8 gallons per 20 linear feet per foot of depth.

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### **CONTROL OF WOOD-INFESTING PESTS WITH WISDOM TC FLOWABLE IN EXISTING WOOD STRUCTURES:**

(Localized Infestations Only) Wisdom TC Flowable will effectively control infestation of various species of termites, ants (including carpenter ants), wood boring beetles (such as old house borer or powder post beetles) in most localized areas of infested wood and surrounding structures. Treat at the rate of 0.06% a.i. Wisdom TC Flowable spray emulsion into the voids and insect galleries in infested wood and empty spaces between wooden members and the points where wood makes contact with the foundation walls. Paint sprayers or pressurized pesticide sprayers equipped with fan type nozzles may be used. Protect area below overhead treated areas by placing plastic sheeting in all areas except the exposed soil located in crawl spaces. Inaccessible areas can be treated by first drilling and then injecting spray emulsion into cracks and crevices, damaged wood or void spaces, using suitable spray injector equipment. Such treatment does not constitute substitution of proper soil treatment, removal and replacement; or fumigation to control extensive infestation of insects. It is recommended that termite carton nest material in trees or buildings be removed as soon as these are identified. Void areas can be injected with 0.06% a.i. Wisdom TC Flowable spray emulsion into multiple injection points at varying depths.

### **WISDOM TC FLOWABLE FOR CONTROLLING BEES, WASPS, HORNETS AND YELLOW JACKETS INSIDE DWELLINGS:**

Apply at the rate of 0.06% a.i. spray emulsion during late evening when insects are not active. Thoroughly spray into the breeding (nests) or hiding areas especially under eaves or rafters by contacting as many insects that are visible. When high levels of activity are observed, it may be necessary to re-treat to improve or maintain control. Do not spray until renewed signs of activity are observed.

#### **Advisory:**

- DO NOT make applications until the affected location of heat pipes, ducts, water pipes, sewer lines, electrical boxes and conduits are identified. DO NOT puncture or inject into these structural installations. DO NOT spray into any electrical installation including fixtures, switches, sockets or fuses.
- When used inside the home, ensure that all areas used for food processing or preparation are properly covered during treatment. As an added precaution, all surfaces and utensils should be washed prior to re-use. Vacate pets, including (birds and small animals such as hamsters), and cover aquariums prior to spraying. Do not allow animals or humans to contact treated surfaces until the spray surfaces are dry.
- When spraying overhead interior surfaces, lay plastic sheeting or non-porous tarp below such areas to prevent contamination.

**PPE Advisory:** Always wear protective clothing, airtight goggles, gloves and an appropriate respirator when applying to overhead surfaces or when spraying areas with poor ventilation. Refrain from contacting sprayed areas until the residue has dried completely.

### **GUIDELINES FOR GENERAL TREATMENT OF WOODEN STRUCTURES OUTSIDE DWELLINGS FOR CONTROLLING WOOD-INFESTING PESTS (including nuisance pests such as bees, wasps, hornets, and yellow jackets):**

Use appropriate spray equipment- set at a maximum of 25 psi equipped with a fan-type nozzle and spray Wisdom TC Flowable at the rate of 0.06% a.i. spray emulsion. Spray to run off point.

For controlling wood boring and wood infesting insects inside trees, utility poles, fences or ornamental posts, first drill to locate the interior cavity that contains the infestation. Using appropriate injection equipment, spray Wisdom TC Flowable at the rate of 0.06% a.i. To control bees, wasps, hornets and yellow jackets outdoors, make application during the late evening hours when they are inactive. Spray directly onto nest openings in trees, bushes, cracks and crevices, eaves, on the ground or places that may provide refuge to insect nests. Spray should contact as many individual insects (both adult and immature forms), as possible.

### **GENERAL USE DIRECTIONS FOR WISDOM TC FLOWABLE IN LAWNS, ORNAMENTAL TREES AND BUSHES, INTERIOR PLANTSCAPE AND PLANTS AROUND HOMES AND GARDENS**

Wisdom TC Flowable is specially formulated to easily mix with water and other adjuvants. It effectively controls a broad spectrum of arthropods such as, insects and mites on various use sites such as trees, bushes and shrubs, foliage plants, fruit and nut trees (non-bearing\*), flowering plants in interior landscapes (such as hotels, shopping malls, office buildings, etc.), outdoor landscaping trees and shrubs (such as around homes, parks, office buildings, athletic fields, recreational areas and home lawns and gardens.)

Tank mixing Wisdom TC Flowable with other pesticides such as insect growth regulators can be done to improve overall efficacy. However, when mixing, applicator should follow all use directions, limitations and precautions listed on each of the product's labels. Physical compatibility of Wisdom TC Flowable will vary depending on the source of the various pesticide formulations and specific cultural practices. Always check for physical compatibility for products with unknown compatibility profiles by conducting a jar test and utilizing the intended proportions of pesticides. Use local water when conducting such a test. Always ensure physical compatibility prior to large-scale use. Please follow the following order for preparing a new tank mixture (unless specified

otherwise):

\* Non bearing trees are perennial crops that do not produce edible fruits or vegetables (raw agricultural commodities) during the season when Wisdom TC Flowable is applied.

First add wettable powders to the spray tank and agitate. Add liquids followed by Wisdom TC Flowable and continue to agitate mixture. Finally, add Emulsifiable Concentrates (ECs) and continue agitation. If the mixture is found to be incompatible, (as evidenced by creaming or settling out) try reversing this order or increasing the spray volume of water. When water volume is increased, the sprayer should be recalibrated. Never allow a tank mix to age overnight.

**Pest Resistance:** Pests have demonstrated the ability to develop resistance to continual use of the same product or to products with a similar mode of action. In order to avoid conditions which favor development of pest resistance, follow established resistance management guidelines for your geography as recommended by state agricultural extension personnel and crop consultants. If product performance diminishes and pest resistance is suspected to have developed in your geography, and specifically on your crop, repeated use of this product may not adequately control the target pest. As soon as practical, contact your local crop consultant, agricultural advisor, or AMVAC representative to obtain information on alternative pest management strategies in your geography.

**USE DIRECTIONS FOR WISDOM TC FLOWABLE ON LAWNS:**

Wisdom TC Flowable may be applied as a high-volume broadcast by calibrating spray volume to deliver up to 10 gallons / 1000 sq ft. Make uniform applications and use the higher volume (10 gallons) when treating dense lawns. Use below 2 gallons spray volume/ 1000 sq ft when making low-volume applications. However, immediately irrigate with at least 0.25" of water following treatment to make sure that sub-surface dwelling pests such as (but not limited to): mole crickets, chinch bugs and grubs, are effectively controlled.

**Use Rates:** When Wisdom TC Flowable is diluted and sprayed at the rates listed below, it will provide excellent control of the pests listed. Under normal conditions, Wisdom TC Flowable may be applied at a rate up to 1 oz/ 1000 sq ft. This maximum use rate should be used when extended residual control is needed.

**List of Pests and Recommended Use Direction for Wisdom TC Flowable**

**Caterpillars such as Armyworms, Cutworms, Sod Webworms:** Make broadcast application at the rate of 0.18 to 0.25 oz/ 1000sq ft. To optimize efficacy, do not irrigate lawn or mow for 24 hours post application. During times when grass is mowed at a height of > 1", higher use rates up to 1oz/ 1000 sq ft should be considered, especially during times of increased insect activity.

**Annual Bluegrass Weevil (adults):** Treat lawns as soon as adult weevils leave their overwintering sites and enter the lawns. Generally speaking, this activity coincides with the time when *Forsythia* bushes attains full bloom and ends when the flowering dogwood (*Cornus florida*) is in peak bloom. Your local state Cooperative Extension agent may provide more detailed information regarding bluegrass weevil activity in your region.

**Billbugs (adults):** At first sign of adult billbug activity during April and May, treat with Wisdom TC Flowable at the rate of 0.25 - 0.5 oz/ 1000 sq ft. Consult your local State Cooperative Extension Agent, who may be familiar with degree-day models that accurately predict billbug activity in your area. Spring applications made in temperate zones will also provide good control of overwintering chinch bugs, as well.

**Black turfgrass atenioides (adults):** Apply Wisdom TC Flowable during May and July to effectively control 1<sup>st</sup> and 2<sup>nd</sup> generation adults, respectively. First application (May) should be made when Vanhoutte Spiraea (*Spiraea x Vanhouttei*) and Horse Chestnut (*Aesculus hippocastanum*) are in peak flowering mode. The second application (July) should be made when the Rose of Sharon (*Hibiscus syriacus*) enters the blooming period. Treat with Wisdom TC Flowable at the rate of 0.24 - 0.5 oz/ 1000 sq ft.

**Centipedes, crickets, earwigs, fleas (adults), grasshoppers, leafhoppers, mealybugs, millipedes, and pill bugs (sowbugs).** Use Wisdom TC Flowable at a rate ranging from 0.25 - 0.5 oz/ 1000 sq ft. Use the higher rates for higher pest populations. Applications may be made to surface, cracks and crevices and areas where these pests are likely to be present. Applications may be made with a fan, pin, stream, crack and crevice injection or similar application equipment.

**Chinch Bugs:** These pests are found in the thatch layer of lawns. Watering lawns prior to treatment will help the distribution of Wisdom TC Flowable to the general area where the feeding activity takes place. Use higher spray volumes when the thatch layer is thick or the lawn height is maintained higher than normal. Chinch bugs are often difficult to control and therefore higher application rates of 1 oz/ 1000 sq ft may be necessary to maintain populations of both nymphs and adults in check during the peak months of summer. For light infestations, treat with Wisdom TC Flowable at a rate between 0.25 - 0.5 oz/ 1000sq ft.

**Mites (such as Banks grass mites and eriophyiid mites):** When treating for mites, add a suitable surfactant at labeled rates to the

spray emulsion containing Wisdom TC Flowable. Treat at a rate of 0.25- 0.5 oz/ 1000 sq ft. A second application may be needed 5-7 days later, to obtain acceptable control.

**Fleas:** Fleas will linger and multiply on various surfaces such as soil, leaf litter, etc, and in shady areas which are frequented by pets or other animals. In such areas where flea larval activity is likely, use a higher volume of spray emulsion of Wisdom TC Flowable at the rate of 0.5 - 1.0 oz/ 1000 sq ft to control flea larvae and adults. When targeting adult flea populations, spray Wisdom TC Flowable at a rate varying between 0.25 - 0.5 oz/ 1000 sq ft.

**Imported Fire Ants (Foraging Adults):** Best control is achieved when a combination of a broadcast application (that will effectively control foraging workers and newly mated queens) and drenching of fire ants mounds (which will eliminate colonies) is made. Care should be taken to water lawns or soil or adopt a high volume of spray application. Apply 1 oz/ 1000 sq ft of Wisdom TC Flowable as a broadcast treatment. For treating mounds, dilute Wisdom TC Flowable at a rate of 1 tsp/ gallon of water and apply 1 to 2 gallons of spray emulsion for each mound. Ensure that the apices of mounds are broken up to allow the penetration of the spray emulsion inside the mound and into the tunnels. The area around the mound (4 feet diameter) should also be treated. Make application when weather is cool (65-80°F) preferably during early morning hours or at dusk. When spray equipment is calibrated to deliver 1 oz/ 1000 sq ft of Wisdom TC Flowable in 5 gallons, this spray emulsion contains the approximate concentration (1 tsp/ gallon) required for mound drenches. Care should be taken to ensure the emulsion thoroughly drenches the mound as deeply as possible, such that no ants escape treatment.

**Mole Crickets:** Adult mole crickets are difficult to control because the lawns are constantly being invaded during early spring months. Areas that endure high adult mole cricket population should be treated during the period when peak egg hatch occurs so that adequate control of the nymphal population is possible (see section below). Applications with Wisdom TC Flowable should be made as late in the day as possible, followed by up to 0.5" of irrigation water to move the active ingredient down into the thatch layer and below. When the soil is not moist, it is important to pre-irrigate; to encourage the mole crickets to the top of the soil surface for maximum insecticidal contact. Use rate of Wisdom TC Flowable is 0.5 - 1.0 oz / 1000 sq ft.

Optimal Control of Mole Cricket nymphs is possible by making Wisdom TC Flowable applications just before peak egg hatch. Control of later nymphal instar (which cause more damage) during the later part of the spring and summer months will require the use of both a higher concentration and more frequent applications to keep the population in check. Always follow each treatment with up to 0.5 inch of water.

**Ticks (Including ticks that may be vectors of Rocky Mountain Spotted Fever or Lyme Disease):**

Always treat the entire area where ticks may be found. Spot applications are ineffective and should be avoided. In areas with dense ground cover, debris or leaf litter, adjust to use higher spray volumes. Treat areas of foliage suspected to harbor ticks. Transition zones bordered by weedy or brushy areas may normally be expected to harbor ticks. Foliage and tree trunks and branches should be treated thoroughly to a height of four feet. When tick populations are high, repeat applications may be needed to maintain control. However, re-treat only when fresh or renewed activity is observed in treated areas. Do not treat more frequently than once a week. Use Wisdom TC Flowable at a rate between 0.5 - 1.0 oz/ 1000 sq ft.

**Deer Ticks:** These ticks have a life cycle that may extend over two years and go through four life stages. Treatment should begin during late fall and or early spring to target adult ticks which are found in shrubs, brush or grass. The nymphs and larvae reside in soil and leaf litter and are typically found during the mid-late spring season. Apply Wisdom TC Flowable at a rate between 0.5 - 1.0 oz/ 1000 sq ft.

**American Dog Ticks:** In lands adjoining forests or fields or in suburban areas, American dog ticks can be bothersome. Frequently, these ticks aggregate along trails, foot paths or roads where humans or pets go for walks or hikes. Ticks may be present in brush, weeds and foliage located along paths and travel ways where they may encounter a passing animal that they may attach themselves to. Such areas can be treated with Wisdom TC Flowable at a rate between 0.5 - 1.0 oz/ 1000 sq ft during mid-spring and early fall to control the larval, nymphal and adult stages. Treatment of these areas with a coarse fan spray application will be effective for tick control.

**In New York State, this product may NOT be applied to any grass or turf area within 100 feet of a water body (lake, pond, river, stream, wetland, or drainage ditch).**

**In New York State, do make a single repeat application of Wisdom TC Flowable if there are signs of renewed insect activity, but not sooner than two weeks after the first application.**

**Wisdom TC Flowable Dilution Matrix for Lawns and Other Areas**

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| Target Application Rate of Wisdom TC Flowable (oz/ 1000 sq ft) | Target Spray Volume (gallon/ 1000 sq ft.) | Actual Quantity of Wisdom TC Flowable (oz) to be Added to Spray Tank (Spray Volume) |           |            |
|--|---|---|-----------|------------|
|  |   | 1 gallon  | 5 gallons | 10 gallons |
| 0.18   | 1.0                                       | 0.18  | 0.90      | 1.80       |
| 0.25   | 1.0                                       | 0.25  | 1.25      | 2.50       |
| 0.50   | 1.0                                       | 0.50  | 2.50      | 5.00       |
| 1.00   | 1.0                                       | 1.00  | 5.00      | 10.00      |
| 0.18   | 5.0                                       | ---   | 0.18      | 0.36       |
| 0.25   | 5.0                                       | ---   | 0.25      | 0.50       |
| 0.50   | 5.0                                       | 0.10  | 0.50      | 1.00       |
| 1.00   | 5.0                                       | 0.20  | 1.00      | 2.00       |
| 0.18   | 10.0                                      | ---   | ---       | 0.18       |
| 0.25   | 10.0                                      | ---   | 0.13      | 0.25       |
| 0.50   | 10.0                                      | ---   | 0.25      | 0.50       |
| 1.00   | 10.0                                      | 0.10  | 0.50      | 1.00       |

**Conversion Information:**

1 gallon = 128 oz

1 oz = 29.57 mL = 2 tbsp = 6 tsp

1 Acre = 43,560 sq ft

Under no circumstances should kitchen utensils be used to measure Wisdom TC Flowable.

**USE DIRECTIONS FOR ORNAMENTALS, BEDDING PLANTS AND OTHER LANDSCAPE PLANTS:**

Wisdom TC Flowable can be used on many ornamental plants (such as, but not limited to: bedding plants, foliage plants, ground covers, shrubs, shade and ornamental trees). Treat at the rate of 0.125 to 1.0 oz of Wisdom TC Flowable per 1000 sq ft or diluted at the rate of 5.4 to 43.5 oz/ 100 gallons. The dilution of Wisdom TC Flowable in water may be adjusted, but should not exceed 1.0 oz/ 1000 sq ft or 43.5 oz/ 100 gallons (maximum label rate).

Low Volume Application: Low volume application with Wisdom TC Flowable may be done by using suitable spray or mist blowing equipment by diluting with water or other carriers. Do not exceed the label maximum rate of 1.0 oz/ 1000 sq ft or 43.5 oz per 100 gallons.

Make applications to ensure full foliar coverage. Treatments may be repeated depending on pest conditions and use higher rates as and when pest pressure or plant canopy (foliage area) increases. Do not spray at less than 7 day (1 week) intervals.

**Phytotoxicity:** Wisdom TC Flowable spray emulsion is generally safe to use on a wide range of ornamentals; however, certain cultivars may be sensitive to certain applications. To ensure plant safety, a few plants should be treated and observed for 7 days prior to large scale applications.

**Resistance Management:** Generally, alternating other chemicals with different modes of action is recommended to prevent or slow the onset of insecticide resistance. The active ingredient in Wisdom TC Flowable is bifenthrin which belongs to the pyrethroid group of insecticides.

**Dilution Chart for Wisdom TC Flowable  
(Ornamentals, Bedding Plants and Other Landscape Plants)**

| Target Application rate of Wisdom TC Flowable (oz) |          | Target Spray Volume (gallons) |           | Actual quantity of Wisdom TC Flowable to be Added to Spray Tank (Spray Volume) |           |            |             |
|--|----------|-------------------------------|-----------|--|-----------|------------|-------------|
| Per 1,000 sq. ft                                   | Per Acre | Per 1,000 sq. ft              | Per Acre* | 1 gallon   | 5 gallons | 10 gallons | 100 gallons |
|  |          |                               |           |  |           |            |             |

|       |      |     |     |      |      |      |       |
|-------|------|-----|-----|------|------|------|-------|
| 0.125 | 5.5  | 2.3 | 100 | ---  | 0.27 | 0.54 | 5.40  |
| 0.250 | 10.9 | 2.3 | 100 | 0.11 | 0.54 | 1.08 | 10.80 |
| 0.500 | 21.8 | 2.3 | 100 | 0.22 | 1.09 | 2.17 | 21.70 |
| 1.000 | 43.5 | 2.3 | 100 | 0.44 | 2.17 | 4.35 | 43.50 |
| 0.125 | 5.5  | 4.6 | 200 | ---  | 0.14 | 0.27 | 2.70  |
| 0.250 | 10.9 | 4.6 | 200 | ---  | 0.27 | 0.54 | 5.40  |
| 0.500 | 21.8 | 4.6 | 200 | 0.11 | 0.54 | 1.09 | 10.90 |
| 1.000 | 43.5 | 4.6 | 200 | 0.22 | 1.09 | 2.17 | 21.70 |
| 0.125 | 5.5  | 6.9 | 300 | ---  | ---  | 0.18 | 1.80  |
| 0.250 | 10.9 | 6.9 | 300 | ---  | 0.18 | 0.36 | 3.60  |
| 0.500 | 21.8 | 6.9 | 300 | ---  | 0.36 | 0.72 | 7.20  |
| 1.000 | 43.5 | 6.9 | 300 | 0.15 | 0.72 | 1.45 | 14.50 |

**Conversion Information:**

1 oz = 29.57mL = 2 tbsp = 6tsp

1 gallon = 128 oz

1 acre = 43,560 sq ft

\*For a typical high volume application, 300 gallons/ acre will be required for landscape ornamentals.

Advisory: Under no circumstances should kitchen utensils be used to measure Wisdom TC Flowable.

**Steps for calculating desired spray volume:**

Identify the toughest pest to control (in mixed infestations). In other words, pick the pest that requires the highest application rate per 1000 sq ft.; then select the appropriate/ recommended application rate (oz/ 1000 sq ft.), depending on the area to be treated; choose the desired spray tank volume (gallons); and finally determine the actual quantity of Wisdom TC Flowable (in oz) to be added to the final spray tank from the table above.

Example: For controlling black vine weevil adults (aka taxus weevil) in rhododendrons, the recommendation is 0.25 - 0.5 oz Wisdom TC Flowable per 1000 sq ft. You can opt to treat at the higher recommended rate (0.5 oz/ 1000 sq ft) because pest pressure is high and a maximum residual effect is needed. The high volume spray treatment will require 300 gpa (gallons per acre) or 6.9 gallons / 1000 sq ft. If your treated area is around 1000 sq ft, then you should prepare a 10 gallon spray tank emulsion by adding 0.72 oz of Wisdom TC Flowable. Follow all mixing directions.

**RECOMMENDED RATES FOR PEST INFESTING ORNAMENTAL BEDDING PLANTS AND OTHER LANDSCAPE PLANTS:** Use the following applications rates for obtaining excellent control of the listed pests under normal use situations. Generally speaking, the higher use rate in the range should be used when maximum residual control is necessary; however, at the applicator's discretion, Wisdom TC Flowable may be applied at a maximum use rate of 1 oz/ 1000sq ft or 43.5 oz per 100 gallons to control any of the pests listed below.

**For bagworms, cutworms, elm leaf beetles, fall webworms, spring and fall cankerworm, gypsy moth caterpillars, lace bugs, leaf feeding caterpillars and tent caterpillars:** spray at a rate of 0.125 oz/ 1000 sq ft (or 5.4- 10.8 oz /100 gallons Wisdom TC Flowable. For bagworms, target egg hatch stage and spray on to the larvae directly. Applications made when larvae are young are the most effective.

For adelgids\*, ants, aphids, bees, beet armyworms, beetles\*, black vine weevils (adults), brown soft scales, broad mites, budworms, California red scales (crawlers only), centipedes, cicadas\*, citrus thrips, clover mites, crickets, *Diaprepes* (adults), earwigs, European red mites, flea beetles, fungus gnats (adults), grasshoppers, Japanese beetles (adults)\*, leafhoppers, leafrollers, mealy bugs, millipedes, mites, mosquitoes, orchid weevils, pill bugs (sowbugs), pine needle scales (crawlers only), plant bugs (including *Lygus spp.*), psyllids\*, San Jose scales (crawlers only), scorpions, spider mites, spiders, spittle bugs\*, tip moths, tree hoppers\*, twig borers, wasps, weevils and whiteflies: spray at the rate of 0.25- 0.5 oz per 1000 sq ft (or 10.8 to 21.7 oz/ 100 gallons). For beetles (California, red scale, pine needle, San Jose), scale crawlers, twig borers and weevils, ensure that tree trunks, branches and twigs are also well treated in addition to the plant foliage in the canopy.

For controlling imported fire ants (foraging ants), leafminers, pecan leaf scorch mites, pine shoot beetle adults and spider mites (see below), spray 0.5 to 1.0 oz/ 1000 sq ft (21.7 - 43.5 oz/ 100 gallons).

\*Not for use in California

**Special note on spider mite control:**

Wisdom TC Flowable is a pyrethroid that provides very good control of twospotted-spider mites in the spring and mid summer months. However, treatments targeting the higher recommended rate along with more frequent applications may be needed for obtaining acceptable control during mid summer to late summer months. The addition of a non-phytotoxic surfactant or horticultural oil can increase efficacy against spider mites. Tank mix combinations of Wisdom TC Flowable with other approved miticides having different modes of action or alternating Wisdom TC Flowable applications with such miticides, may be useful for managing the development of resistance of two-spotted spider mites to such compounds. Your local extension agent may provide additional information about spider mite resistance management tactics which are specific for your area.

**USE DIRECTIONS FOR WISDOM TC FLOWABLE ON OUTSIDE SURFACES AND AROUND BUILDINGS:**

Wisdom TC Flowable may be used as a general pest control application for the control of a variety of common pests. Wisdom TC Flowable can be used to obtain excellent control of ants, carpenter ants, fire ants, armyworms, bees, beetles\*, biting flies, boxelder bugs, centipedes, chiggers, chinch bugs, clover mites, cockroaches, crickets, cutworms, *Dichondra* flea beetles, earwigs, elm leaf beetles, firebrats, fleas, flies, gnats, grasshoppers, hornets, japanese beetles\*, midges, millipedes, mosquitoes (see section on mosquitoes below), moths, pillbugs (sowbugs), scorpions, silverfish, sod webworms, spider mites, spiders (including black widow spiders), springtails, ticks (including brown dog ticks), yellow jackets and wasps.

\*Not registered for use in California

Dilute Wisdom TC Flowable to obtain a 0.02% a.i. to 0.06% a.i. in the spray tank and apply as a residual spray onto the outside areas of building structures. These include ( but are not limited to) exterior sidings, foundation, porches, window frames, eaves, patios, garages, refuse dumps, lawns and other grassy areas adjoining private homes, duplexes, town homes, condominiums, house trailers, apartment complexes, carports, fences and storage sheds, barns, and other residential and non-commercial structures. It may also be applied directly to soil, tree trunks of woody ornamentals and other areas where pests congregate or breed. Use a spray volume of 10 gallons/ 1000 sq ft (435 gpa). Higher application volumes may be used on dense foliage or for treating landscaping materials.

**Dilution Table for Wisdom TC Flowable**

| Target A.I. Concentration in Spray Tank | Final Spray Volume (gallons)                                |          |           |  | Remarks               |
|---|---|----------|-----------|--|-----------------------|
|   | Amount (oz) of Wisdom TC Flowable to be Added to Spray Tank |          |           |  |                       |
|   | 1 gallon  | 5 gallon | 10 gallon |  |                       |
| 0.02%                                   | 0.33  | 1.67     | 3.33      |  | Low Pest Infestation  |
| 0.06%                                   | 1.00  | 5.00     | 10.00     |  | High Pest Infestation |

Use the higher rate (0.06% a.i.) for heavy pest populations, for achieving quick knockdown or to obtain prolonged residual activity. Re-treat areas when needed or when it is necessary to control pest populations when they are rapidly increasing. Re-treat areas only when there are indications that the pests are rebounding. DO NOT make applications closer than 1 week apart. DO NOT use kitchen utensils for measuring Wisdom TC Flowable.

**Perimeter Treatments of Structures with Wisdom TC Flowable.** Make application of Wisdom TC Flowable in a band treatment of up to 10 feet wide to the area immediately surrounding structures and up the structures exterior to a height of up to 3 feet. Care should be taken when treating various siding materials to avoid the possibility of staining or discoloration of siding materials. Dilute Wisdom TC Flowable in sufficient water (see Table below) at rates ranging from 0.33 to 1 oz/ 1000 sq ft. Ensure adequate coverage by preparing desired volume of final spray emulsion.

**Wisdom TC Flowable  
Dilution Matrix for Perimeter Treatments**

| Target Application Rate of Wisdom TC Flowable (oz) |       | Target Spray Volume (gallons) |      | Actual Quantity of Wisdom TC Flowable to be Added to Spray Tank (Spray Volume) |           |            |             |
|--|-------|-------------------------------|------|--|-----------|------------|-------------|
| 1,000 sq. ft                                       | Acre  | 1,000 sq. ft                  | Acre | 1 gallon   | 5 gallons | 10 gallons | 100 gallons |
| 0.33   | 14.38 | 1                             | 43.5 | 0.33   | 1.67      | 3.33       | 33.3        |
| 0.50   | 21.78 | 1                             | 43.5 | 0.50   | 2.50      | 5.00       | 50.0        |

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|      |       |    |       |      |      |       |       |
|------|-------|----|-------|------|------|-------|-------|
| 0.67 | 29.19 | 1  | 43.5  | 0.67 | 3.33 | 6.67  | 66.7  |
| 0.75 | 32.67 | 1  | 43.5  | 0.75 | 3.75 | 7.50  | 75.0  |
| 1.00 | 43.56 | 1  | 43.5  | 1.00 | 5.00 | 10.00 | 100.0 |
| 0.33 | 14.38 | 5  | 217.5 | ---  | 0.33 | 0.67  | 6.7   |
| 0.50 | 21.78 | 5  | 217.5 | 0.10 | 0.50 | 1.00  | 10.0  |
| 0.67 | 29.19 | 5  | 217.5 | 0.13 | 0.67 | 1.33  | 13.3  |
| 0.75 | 32.67 | 5  | 217.5 | 0.15 | 0.75 | 1.50  | 15.0  |
| 1.00 | 43.56 | 5  | 217.5 | 0.20 | 1.00 | 2.00  | 20.0  |
| 0.33 | 14.38 | 10 | 435.6 | ---  | 0.17 | 0.33  | 3.3   |
| 0.50 | 21.78 | 10 | 435.6 | ---  | 0.25 | 0.50  | 5.0   |
| 0.67 | 29.19 | 10 | 435.6 | ---  | 0.33 | 0.67  | 6.7   |
| 0.75 | 32.67 | 10 | 435.6 | ---  | 0.38 | 0.75  | 7.5   |
| 1.00 | 43.56 | 10 | 435.6 | 0.10 | 0.50 | 1.00  | 10.0  |

**Conversion Information**

1 oz = 29.57mL = 2 tbsp = 6tsp

1 gallon = 128 oz

1 acre = 43,560 sq ft

**Wisdom TC Flowable for Controlling Ant and Fire Ant Mounds - Drench Method:**

Treat each ant or fire ant mound by pouring, sprinkling or spraying 1 to 2 gallons of Wisdom TC Flowable diluted to 0.06% a.i. until the area is saturated. Also, treat a circle of 4 feet in diameter surrounding the mounds. For mounds larger than 12", use the 2 gallon/mound rate. Ideally, application should be made in cool weather (early morning or dusk) when insects are inactive. Avoid treating in the mid to late afternoon. Care should be taken to assure that the mound is sufficiently treated such that no ants escape treatment. This may be done by stirring in the treatment or rod injecting the insecticide emulsion to sufficiently penetrate the depth of the mound.

**Adult Mosquito Control:**

Wisdom TC Flowable may be used to control mosquitoes. Dilute Wisdom TC Flowable and spray at a rate of 0.33 to 1.0 oz per gallon of water for each 1,000 sq. ft. Mosquitoes may rest within shaded foliage and other such resting spots during the day to avoid exposure to direct sunlight. These areas surrounding a structure's exterior including such areas as landscapes, shrubs, trees and ornamentals, lawns and buildings exteriors may be sprayed to keep adult mosquito populations down. When higher spray volumes are desired, Wisdom TC Flowable may be mixed at the lower concentration (0.33 oz/ gallon) and application can be made provided proper amount of product is applied per area (see Dilution Matrix table shown above). Applications may be made using a fine flat fan spray application device, spray mist blowers, ULV generating devices and other such equipment.

**WISDOM TC FLOWABLE FOR INDOOR USE:**

Wisdom TC Flowable can be used to effectively control: ants, bees, beetles, boxelder bugs, carpet beetles, centipedes, cloth moths, cockroaches, crickets, earwigs, firebrats, flies, gnats, midges, millipedes, pillbugs (sowbugs), scorpions, silverfish, spiders, ticks, yellow jackets and wasps.

**General Information:**

For residential pest control, general buildings and on transportation vehicles, use Wisdom TC Flowable at the rate of 0.02% to 0.06% a.i. (1.0 - 3.0 oz/ 3 gallons) using a standard insecticide sprayer. Make application as a crack and crevice, pinstream, spot treatment, or as a coarse spray (with pressure set at equal to or less than 25 psi). Spray emulsion may also be painted on using a standard paint brush.

**Use Directions- Indoor Treatments:** Wisdom TC Flowable should be diluted and applied as a coarse (low pressure, <25 psi) crack and crevice and/ or spot application spray to areas where the target pests typically hide such as: baseboards, room corners, storage areas, closets, around water and utility pipes, doors and window sills, attics and eaves, rear and sides of refrigerators, garage and kitchen cabinets, under sinks, furnaces, stoves, underneath shelves, drawers and other areas. Applicators should specifically target cracks and crevices, voids and other areas where pests may travel and hide. For controlling ants, apply directly to ant trails (including outside of structure), around doors, windows and structural edges where ants tend to travel and hide. Treat areas within the landscape such as mulch, garden beds and other areas where they are likely to nest. Do not use as a space spray.

**Precaution:** All foodstuffs or cooking utensils should be covered or removed prior to treating the areas.

Wisdom TC Flowable may be diluted with water for brush or spray applications. Begin by filling up the sprayer with a pre-

determined volume of water and by adding the required amount of product (see Dilution Matrix table). Mix well and pump the sprayer to desired pressure. Re-treat areas during times of high pest pressure or when renewed pest activity is observed. This is needed to keep the pest population under control. Do not apply at a frequency of less than one week.

**Use Directions for Controlling Cockroaches, Crickets, Firebrats, Scorpions, Silverfish, Spiders and Ticks:**

Using appropriate spray equipment, make applications directly to areas which arthropods inhabit such as: baseboards, corners, storage areas, closets, around water pipes, doors and windows (including sills), attics, caves, around and behind refrigerators, inside cabinets, under sinks, around furnaces, stoves, under shelves, drawers and other general areas including cracks and crevices in walls and other such areas. Applications should be made as a low pressure, coarse spray.

Bees, hornets, and wasps (including yellow jackets) should be sprayed late in the evening when they are resting. Direct treatments may be made to the nests and the entrances including areas where they are likely to land using low pressure spray equipment with an injection tip, fan or pin stream or other such spraying devices. Applicators may wish to consider using foam equipment to treat nest openings to prevent stinging insects from emerging from the nest and to reduce the hazard of being stung during such treatments.

For controlling boxelder bugs, centipedes, earwigs, beetles, millipeds, pillbugs (sow bugs), spray areas where these pests are likely to be found such as around doors and windows or other locations where they may gain entry inside. Inside dwellings, spray baseboards or general storage and other similar sites.

**USE DIRECTIONS FOR WISDOM TC FLOWABLE IN FOOD/ FEED HANDLING ESTABLISHMENTS:**

**Definition:** Food/ Feed handling establishments are premises (which are not private residential dwellings) where exposed food is generally stored processed, prepared or served. Places such as areas where food/feed is received, stored, packed (such as canning, bottling, labeling or boxing) or where edible waste is stored and also includes food processing factories (such as mills, dairies, edible oil extraction plants, syrup manufacturing plants, etc), serving areas (where food is exposed) such as restaurants and hotels, are also covered in this use site.

- I. **Food and feed handling establishment:** Food/ feed handling establishments may be treated with Wisdom TC Flowable in both food/ feed and non-food areas of the premises. Approved treatments include a general surface, spot or crack and crevice spray application.
- II. **Non food areas that can be sprayed include:** garbage rooms, lavatories, floor drains (leading to sewer systems) doorways and vestibules, offices, locker rooms, equipment rooms, garages, cleaning supply closets and pantries. Wisdom TC Flowable can also be used in places such as (but not limited to) aircraft (but NOT aircraft cabins), apartment buildings, bakery shops, bottling plants, macro and micro breweries, buses and automobiles, cafeterias, candy manufacturing plants, canneries, milk and cheese processing plants, general food manufacturing and processing plants, food services operations, granaries (silos) meat/ egg or poultry processing plants, mobile homes, nursing or assisted living homes, general offices, railcars, schools and universities, ships (cargo and passenger), trailers, trucks, sea vessels, warehouses and wineries.
- a) **General Service Treatments:** This method of treatment should be avoided in food/ feed handling establishments when the premises is in general operation or when food/ feed are unprotected. DO NOT make applications directly to food articles. Ensure that all food/ feed processing and or handling machinery is covered or removed from the area to be treated. Soon after treatment in food processing establishments such as, bakeries, cafeterias, restaurants or similar sites, care should be taken to make sure that all equipment, benches, shelves, or other areas where food will come in contact, be washed to remove residue. All equipment used for handling and processing should also be thoroughly cleaned with clean water soon after treatment.
- b) **Crack and Crevice and Spot Applications:** These treatments can be made while the establishment is in full or partial operation. It is important to ensure that all food items be covered or removed from the area intended to be treated. DO NOT spray directly on to any food items. Applicators should be familiar with local regulations regarding spot treatments, crack and crevice treatments and other such treatments in food handling establishments.
- c) **Foam Applications:** Wisdom TC Flowable can be converted into foam for treating building structure void spaces. Mix 0.33 oz to 1.0 oz of Wisdom TC Flowable per gallon of water along with foam manufacturer's recommended volume of foaming agent for yielding a 0.02% to 0.06 % final a.i. concentration in the foam matrix. Before mixing, establish the physical compatibility of Wisdom TC Flowable with the specific formulation of the foaming agent.

**GENERAL ANT CONTROL:**

- a) **Indoor Nuisance Ant Control:** When possible, treat ant nests directly. Use 0.5 - 1.0 oz of Wisdom TC Flowable per gallon of water and treat at the rate of 1 gallon/ 1,000 sq ft as a general surface, crack and crevice and or spot application in areas where ants could potentially appear or where they are already established. Target areas include (but are not restricted to): baseboards, inside and alongside cabinets, below and at the back of dishwashers, furnaces, refrigerators,

sinks, stoves, areas surrounding utility pipes, general cracks and crevices in walls and in corners. Entry points for ants into the home or buildings such as around doors and windows should be adequately treated. Wisdom TC Flowable can be used in conjunction with ant baits which can be located in areas that were not treated with Wisdom TC Flowable.

- b) **Outdoor Nuisance Ant Control:** When possible, treat ant nests directly. Treat ant trails on structural edges along walks, driveways, patios, decks, garden edging, etc. where ants create trails around the vicinity of doors and windows or other areas where ants linger or forage. Create a barrier by spraying around the perimeter with either low or high volume spray equipment described elsewhere in this label. Higher rates or higher dilution and/or higher application spray volumes including more frequent applications may be necessary when spraying concrete surfaces. Follow these steps for optimal ant control:
  - i. Treat non-porous areas with low volume sprays at the rate of 0.5 to 1.0 oz of Wisdom TC Flowable per gallon of water. Spray at the rate of 1 gallon/ 1000 sq ft.
  - ii. Spray porous surfaces or areas with vegetation or ground cover using dilutions that will deliver 0.5 - 1.0 oz Wisdom TC Flowable / 1000 sq ft. (please refer to the Dilution Matrix Table located elsewhere on this label).
  - iii. To obtain the longest residual control, dilute 0.5 – 1.0 oz Wisdom TC Flowable per gallon of water and spray at the rate of 10 gallons/ 1000 sq ft (435 gpa)\*.
- c) **Indoor Carpenter Ant Control:** Spray 0.5 – 1.0 oz of Wisdom TC Flowable per gallon of water and spray at the rate of 1 gallon/ 1000 sq ft as a general surface, crack and crevice or spot application in areas where carpenter ants are known to exist or have been observed foraging. Such areas include (but are not restricted to): baseboards, inside and behind cabinets, below and at the back of dishwashers, furnaces, refrigerators, sinks, stoves, areas surrounding utility pipes, general cracks and crevices and also in corners. Carpenter ants are attracted to and may be active near areas of high moisture and/or plumbing leaks. Applicators should be aware of such areas when they treat, and make inspection for carpenter ants. Entry points for ants inside homes or buildings, such as areas around doors and windows, should be adequately treated. Treatment may be made either as spray or as foam into cracks and crevices or by drilling holes and spraying into them. Building voids, where carpenter ants are present, may be treated by misting or foaming directly on to the nests. Wisdom TC Flowable may be used in conjunction with ant baits, which can be located in areas that were not treated with Wisdom TC Flowable.
- d) **Outdoor Carpenter Ant Control:** Generally, carpenter ants may easily be seen as they travel around the exterior of structures foraging for food. Wisdom TC Flowable may be sprayed directly onto carpenter ant trails and areas where carpenter ants travel around the exterior of structures including around doors, windows, utility penetrations, vents and similar places where ant activity has been noticed or expected to appear. To ensure optimal control, locate and directly treat carpenter ants nests. Create a barrier by spraying the perimeter of the building using either low or high volume spray equipment as described in detail elsewhere in this label. Higher rates or higher dilutions and/ or higher application spray volumes including more frequent applications may be necessary when spraying concrete surfaces. Follow these steps for optimal ant control:
  - i. Treat non-porous areas with low volume sprays at the rate of 0.5 to 1 oz Wisdom TC Flowable per gallon of water. Spray at the rate of 1 gallon/ 1000 sq ft.
  - ii. Spray tree trunks and other foraging areas that have visible carpenter ant trails. Use 0.5 - 1.0 oz Wisdom TC Flowable per gallon of water and spray to liberally soak the bark of the tree base to a point as high as possible on the tree trunk.
  - iii. Spray porous surfaces or areas with vegetation or ground cover using dilutions that will deliver 0.5 - 1.0 oz Wisdom TC Flowable/ 1000 sq ft (please refer to the Dilution Matrix Table located elsewhere in this label).
  - iv. To obtain the longest residual control, dilute 0.5- 1.0 oz Wisdom TC Flowable per gallon of water and spray at a volume of up to 10 gallons / 1000 sq ft (435 gpa) \*.

For controlling carpenter ant infestations inside trees, utility poles, fencing or decks or other building structures, drill holes to find the infested section and inject spray or foam created to deliver 0.06% a.i. (1.0 oz Wisdom TC Flowable / gallon water) inside. Use proper spray or foam volume with approved equipment that is outfitted with a splashback guard. Infested voids may be effectively treated using a liquid or foam application.

For controlling carpenter ant populations that are actively tunneling into the soil, dilute 0.5 – 1.0 oz of Wisdom TC Flowable per gallon of water and spray/drench or inject the spray emulsion or foam into holes located 8 to 12 inches apart. Also, establish a continuous vertical barrier on the outer edges of the walls, driveways, patio, slabs or other solid surfaces where ants are tunneling below.

Applicators should inform their customers that firewood and scrap wood should be stored off the ground to reduce moisture. For controlling carpenter ants in wood piles, scrap wood and stored lumber, treatment may be made with a 0.06% a.i. spray emulsion to

\* gpa =gallons per acre

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the area around the wood pile but care should be taken to avoid direct treatment of firewood. A suitable sprayer should be used to make a thorough application to infested wood where a nest may be located. Such treated wood can be incinerated or used as lumber 30 days after treatment. Do not treat such wood inside building structures.

To treat firewood for both carpenter ants and termites, dilute 1.0 oz Wisdom TC Flowable per gallon of water and apply to the soil directly beneath the wood waiting to be stacked. Spray at the rate of 12.5 gallons of spray mixture/100 sq ft. DO NOT directly treat firewood with Wisdom TC Flowable.

**GENERAL USE PRECAUTIONS WHEN USING WISDOM TC FLOWABLE**

DO NOT spray as a broadcast application inside homes or dwellings.

DO NOT spray pets, food/ fiber crops or electrical supply units.

DO NOT treat firewood.

DO NOT allow spray or foam applications to contact food, foodstuffs, food contacting surfaces, kitchen utensils or water supply lines.

DO NOT spray areas where uncovered food is present.

DO NOT allow spray to drip or run off to occur when spraying indoors.

DO NOT allow humans or pets on treated surfaces until the spray or foam has dried.

DO NOT apply in rooms occupied by elderly or sick people.

DO NOT treat patient rooms.

DO NOT treat schools when classes are in progress.

DO NOT treat buildings when occupants are present, especially in institutions such as libraries, sporting arenas, restaurants, etc.

DO NOT treat barns that contain livestock.

Use Wisdom TC Flowable in well ventilated areas only.

Use a plastic or water-proof sheeting to cover surfaces when treating overhead areas of structure (soil surfaces in crawl spaces are exempt).

Wash dishes and food utensils thoroughly with soap and warm water if they become accidentally contaminated.

Wisdom TC Flowable has been determined not to stain or deteriorate any surface that water by itself will not stain or deteriorate.

Wisdom TC Flowable can be used with application equipment designed to deliver low volume applications such as the Micro-Injector® or Actisol® system. Such applicators may also be used to treat cracks and crevices, deep infestation areas, spot application treatments, and for making general surface treatments with Wisdom TC Flowable. Follow all manufacturer's use directions.

### STORAGE AND DISPOSAL

**Prohibitions:** 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. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink container.

**In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. Call CHEMTREC: 1-800-424-9300.**

**To confine spill:** If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

**Pesticide Disposal:** Pesticide wastes are toxic. Do not contaminate water, food or feed by storage or disposal. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. Dispose of excess or waste pesticide by use according to label directions, or contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

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

**Returnable/Refillable Sealed Container:** Do not rinse container. Do not empty remaining formulated product. Do not break seals. Return intact to point of purchase.

### LIMITED WARRANTY AND DISCLAIMER

The manufacturer warrants (a) that this product conforms to the chemical description on the label; (b) that this product is reasonably fit for the purposes set forth in the directions for use, subject to the inherent risks referred to herein, when it is used in accordance with such directions; and (c) that the directions, warnings, and other statements on this label are based upon responsible experts' evaluations of reasonable tests of effectiveness, of toxicity to laboratory animals and to plants and residues on food crops, and upon reports of field experience. Tests have not been made on all varieties of food crops and plants, or in all states or under all conditions.

**THERE ARE NO EXPRESS WARRANTIES OTHER THAN THOSE SET FORTH HEREIN. THE MANUFACTURER NEITHER MAKES NOR INTENDS, NOR DOES IT AUTHORIZE ANY AGENT OR REPRESENTATIVE, TO MAKE ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, AND IT EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE, OR ANY WARRANTY OF QUALITY OR PERFORMANCE. THIS WARRANTY DOES NOT EXTEND TO, AND THE BUYER SHALL BE SOLELY RESPONSIBLE FOR, ANY AND ALL LOSS OR DAMAGE WHICH RESULTS FROM THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE LABEL DIRECTIONS, WARNINGS OR CAUTIONS.**

**BUYER'S EXCLUSIVE REMEDY AND MANUFACTURER'S OR SELLER'S EXCLUSIVE LIABILITY FOR ANY AND ALL CLAIMS, LOSSES, DAMAGES, OR INJURIES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER OR NOT BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE, SHALL BE LIMITED, AT THE MANUFACTURER'S OPTION, TO REPLACEMENT OF, OR THE REPAYMENT OF THE PURCHASE PRICE FOR, THE QUANTITY OF PRODUCT WITH RESPECT TO WHICH DAMAGES ARE CLAIMED. TO THE FULLEST EXTENT PERMITTED BY LAW, MANUFACTURER OR SELLER SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.**

AMVAC offers this product, and Buyer accepts it, subject to the foregoing Limited Warranty which may be varied only by agreement in writing signed by an authorized representative of AMVAC.

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