

# NAF-46 Recruit\*

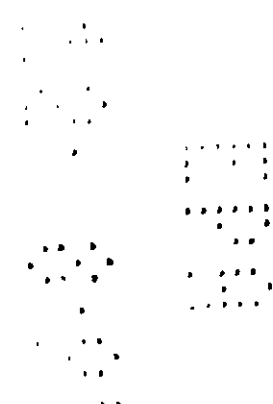
EPA Reg. No. 62719-243

Proposed Label Amendment: Current label text based on EPA-accepted copy dated March 10, 1994.

Proposed revisions (12/07/94):

1. Label edited for clarity and ease of understanding throughout.
2. Revised and reformatted instructions that define the frequency of monitoring for the monitoring phase and during active feeding.
3. Revised procedures for collection of termites from monitoring devices for introduction into the recruitment chambers of Baitubes.
4. Minor editing to correct grammar and punctuation.
5. Figures revised.

**ACCEPTED**  
**15 MAR 1995**  
Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under  
EPA Reg No. 62719-243



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(Logo) DowElanco

# NAF-46 Recruit\*

A termite bait for use in an integrated management system for control protection of structures from subterranean termites

[Editor's note: Alternative statements in ( )]

**Active ingredient:**

hexaflumuron: N(((3,5-dichloro-4-(1,1,2,2-tetrafluoroethoxy)phenyl)amino) carbonyl)-2,6-difluorobenzamide .....	0.1%
Inert ingredients .....	99.9%
Total .....	100.0%

Contains 0.1 grams of hexaflumuron per 100 grams of formulation.

U.S. Patent No. 4,468,405

## Precautionary Statements

### Hazards to Humans and Domestic Animals

Keep Out Of Reach Of Children

## CAUTION

Do not tamper with bait matrix material.

### Environmental Hazards

This product is highly toxic to aquatic invertebrates and possibly to fish. Bait stations Do not use Baitube\* devices should not be placed in depressions, or low areas, that may be flooded or near downspout openings. They should not be used near ponds, streams, springs, or other water sources, or near downspout openings where when the bait or its hexaflumuron contents could be washed out of the bait station Baitube into water at or near the surface of the ground.

## Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before using.

### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.  
Storage: Store in original container in a dry storage area. ~~Do not store above 122°F for extended periods of time.~~  
Disposal: Store used ~~Used~~ Baitube devices that are damaged or no longer needed should be stored until they can be collected by a representative of DowElanco for disposal or recycling.

Refer to label booklet for additional precautionary information and Directions for Use.

Notice: Read the entire label. Use only according to label directions. Before buying or using this product, read "Warranty Disclaimer" and "Limitation of Remedies" sections inside of label booklet.

In case of emergency endangering health or the environment involving this product, call collect 517-636-4400

EPA Reg. No. 62719- 243

EPA Est. 37429-GA-2

\* Trademark of DowElanco

DowElanco - Indianapolis, IN 46268-1053, U.S.A.

**Insect Growth Regulator Termite Bait**  
**6 24 Count**

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(Label Booklet)

(Logo) DowElanco

# **NAF-46-Recruit\***

**A termite bait for use in an integrated management system for control-protection of structures from subterranean termites**

[Editor's note: Alternative statements in (.)]

**Active Ingredient:**

hexaflumuron: N(((3,5-dichloro-4-(1,1,2,2-tetrafluoroethoxy)phenyl)amino)	
carbonyl)-2,6-difluorobenzamide .....	0.1%
Inert ingredients .....	99.9%
Total .....	100.0%

Contains 0.1 grams of hexaflumuron per 100 grams of formulation.

U. S. Patent No. 4,468,405

**Keep Out Of Reach Of Children**

## **CAUTION**

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EPA Reg. No. 62719-243

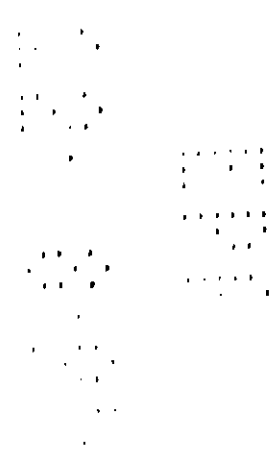
EPA Est. 37429-GA-2

Trademark of DowElanco

DowElanco - Indianapolis, IN 46268-1053, U.S.A.

**Insect Growth Regulator-Termite Bait**

**4-x-6 24 Count**



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## Precautionary Statements

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### Hazards to Humans and Domestic Animals

Keep Out Of Reach Of Children

## CAUTION

Do not tamper with bait matrix material

### Environmental Hazards

This product is highly toxic to aquatic invertebrates and possibly to fish. ~~Bait stations~~ Do not use Baitube® devices should not be placed in depressions, or low areas, that may be flooded or near downspout openings. They should not be used near ponds, streams, springs, or other water sources, or near downspout openings where when the bait or its hexaflumuron contents could be washed out of the bait station Baitube into water at or near the surface of the ground.

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## Directions for Use

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It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before using.

## STORAGE AND DISPOSAL

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

~~Storage: Store in original container in a dry storage area. Do not store above 122°F for extended periods of time.~~

~~Disposal: Store used used Baitube devices that are damaged or no longer needed should be stored until they can be collected by a representative of DowElanco for disposal or recycling.~~

## Handling Procedures

Do not break open or cut into the Baitube. Do not remove protective wrapper from the Baitube until ready for use.

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## General Information

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NAF-46 Recruit® termite bait contains an insect growth regulator (IGR), hexaflumuron, that prevents successful molting and development of subterranean termites. This disruption of development ultimately can result in the decline of the termite colony to the point where the colony can no longer sustain itself and is eliminated.

NAF-46 Recruit was developed to be used ~~is intended for use~~ in the Sentricon® System which represents an integrated pest management approach for the ~~control~~ elimination of subterranean termite colonies, including *Coptotermes*, *Reticulitermes*, and *Heterotermes* spp. and is intended to form the basis of an on-going program providing structural protection from subterranean termites. Use of this management system involves three basic steps: (1) monitoring for the presence of termite activity in and around the target site; (2) delivery of a slow acting insect growth regulator such as NAF-46 Recruit when the presence of subterranean termites has been detected; and (3) continued inspection and monitoring of the site for the presence of termite activity after control ~~or suppression~~ of the colony has been achieved. Although the third phase of the management system is an optional service offered to the owner of the structure, it can provide an on-going preventive service in order to detect any new termite activity.

When termite activity is detected and feeding of NAF-46 Recruit termite bait is established, Baitube ~~devices~~ should continue to must remain in the station be replenished as long as the bait matrix material is being consumed and termites remain active in the Baitubes. When ~~evidence of~~ termite activity ceases in the Baitube ~~ceases~~, resume monitoring to detect the presence of renewed termite activity ~~may be resumed~~ by substituting a monitoring device for the Baitube if the termite control program is on-going.

Do not re-use Baitubes ~~devices~~ or NAF-46 Recruit termite bait. Subterranean termites excrete colony specific pheromones that become incorporated into the matrix bait while feeding and foraging. The pheromones left in the matrix bait by one colony will cause feeding ~~deterrence~~ deterrence or repellency to other colonies, causing it to be ineffective.

It is important for operators to understand the biology and behavior of subterranean termite species, and construction and landscape features conducive to infestation by subterranean termites.

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## Use Directions

Target sites for this system can include buildings, fences, utility poles, decking, landscape plantings and trees or other features which could be damaged by termite feeding and foraging activity. Recruit can be used on the inside or outside of foundation walls of crawl space areas or through concrete and asphalt if adequate soil is determined inaccessible and such action is warranted.

### **Monitoring**

The purpose of the monitoring phase is to detect the presence of subterranean termites. This procedure does not attract termites from other locations. When present, termites can be collected from monitoring devices placed in the soil or Sentricon stations. Upon collection, these termites can be placed inside the Baitube containing NAF-46 Recruit to force tunneling through the bait matrix material. This facilitates their return to the colony to recruit for "recruiting" other nestmates to feed on NAF-46 Recruit. This "self-recruiting" Self-Recruitment process procedure further encourages the subterranean termite population to forage into and feed on NAF-46 Recruit termite bait.

The applicator should first identify Identify critical areas suitable for placing monitoring devices. Critical areas include locations within or adjacent to visible termite activity such as indicated by: foraging tubes, termite infested plants, wood, and other materials; and areas conducive to termite foraging (bath traps, moist soil in shaded areas, near irrigation sprinkler heads, roof down spouts and other water sources moist areas, and near planting beds or other areas with plant root systems). After placement in in addition to select critical areas, install additional monitoring devices should be installed around the target site at intervals which do not exceed 20 feet where soil access is not restricted. The target site can include buildings, fences, utility poles, decking, crawl spaces, landscape plantings and trees or other features which could be damaged by termite feeding and foraging activity.

Inspect monitoring devices monthly for the first three months after installation at a site when termites are known to be active. If no termite activity at a site is documented, then monitoring can be done on a bi-monthly or quarterly basis.

When termite activity is observed in a monitoring device, initiate baiting when worker numbers are sufficient for Self-Recruitment and resume monitoring on a monthly basis. Continue monthly monitoring for as long as there is evidence of termite activity in any Sentricon station at the site. Once active termites are no longer found in all the any Baitube, or matrix Recruit is no longer being consumed for two consecutive monitoring periods, replace the Baitube with a monitoring device and resume monitoring on a bi-monthly or quarterly basis if the control program is continuing. [Editors note: Preceding sentence from "Inspection of Baitube" section.]

Note: Unfavorable conditions such as excessive moisture or freezing of soil may temporarily disrupt feeding on Recruit and monitoring devices. Resume monitoring after return of conditions favorable to termite activity.

### **NAF-46 Delivery of Recruit Termite Bait**

Proper use of the Baitube containing NAF-46 Recruit termite bait maximizes "recruitment" of nestmates and exposure of a large number of termites from a target colony to the IGR containing matrix material.

1. Installation of the Baitube containing NAF-46 Recruit: When termites are detected present in a during inspection of a monitoring device in numbers sufficient for Self-Recruitment, remove the monitoring device should be removed from its location and replaced it with a Baitube.

Prior to placement of the Baitube, peel off the adhesive label at the perforations to expose the termite access holes; to sure the matrix is covering the top access holes of the Baitube since some settling may occur during transportation and storage. If this is evident, invert the Baitube (with the cap still in place) and tap it to force the matrix to cover the top holes.

A Baitube is to be placed where an infested monitoring device has been removed. The empty chamber at the open end (top) of the Baitube provides a space for introduction of termites collected from the monitoring device. Follow the instructions under Self-Recruitment Procedure section then replace the cap after termites are introduced into the Baitube.

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**Self-Recruitment Procedure:** Remove termites from the monitoring device and introduce them into the chamber in the top of the Baitube as follows (refer to Figure 1):

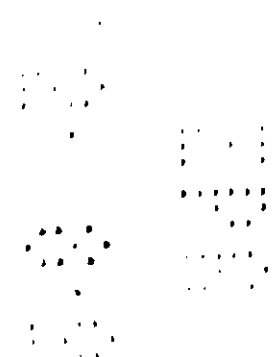
- (1) Remove the cap of the Baitube to expose the recruitment chamber.
- (2) Carefully remove debris, such as soil and carton material, from the surface of the monitoring device. The debris collected can be placed in and around the baiting site to further entice termites to feed at this foraging location.
- (3) While holding it over the Baitube, separate the monitoring device into its pre-formed sections.
- (4) Gently tap the sections of the monitoring device to dislodge as many termites as possible into the Baitube without harming them.
- (5) Replace the cap on the Baitube without harming termites placed in the chamber. If the chamber is overfilled, wait for excess termites to crawl out of the open end of the tube to avoid injuring them when replacing the cap. Dead termites may repel nestmates from feeding at the bait station.

After the capped Baitube is in the Sentricon station, replace the top cap of the station.

Self-Recruitment Procedure: Remove termites from the monitoring device and introduce them into the chamber in the top of the Baitube as follows (refer to Figure 1).

- (1) Remove monitoring device from the station. Place in a flat, smooth sided pan to contain the termites. Carefully clean off debris, soil and mud tube material from the surface of the monitoring device into the collecting pan. The debris collected can be placed in and around the baiting site to entice termites to feed at this foraging location.
- (2) Separate the monitoring device halves and gently tap them to dislodge as many termites as possible into the collecting pan.
- (3) Remove the cap from the Baitube.
- (4) Remove the paper insert which maintains the recruitment chamber during shipping and landing. The paper insert may be used to add a measured amount of water to the Baitube in order to help the termites survive during the initial Self-Recruitment procedure. In arid conditions or in dry soils it may be helpful to add about 15 ml of water (2/3 of the paper cup insert) to the recruitment chamber prior to adding the termites. Let the water soak completely into the material before adding the termites.
- (5) Add termites into the recruitment chamber.
- (6) Replace the cap on the Baitube without harming termites placed in the chamber. If the chamber is overfilled, wait for excess termites to crawl out of the open end of the tube to avoid injuring them when replacing the cap. Dead termites may repel nestmates from feeding at the bait station.
- (7) Prior to placement of the Baitube, peel off the outer covering at the perforations to expose the termite access holes. After the capped Baitube has been placed in the Sentricon Station, replace the top cap of the station.

Figure 1. (Refer to Self-Recruitment Procedure section)



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1a. When termites are present during an inspection of the monitoring device in numbers sufficient for Self-Recruitment, it should be removed the monitoring device and replaced it with a Baitube containing NAF-46 Recruit.

(Insert Graphic)

1b. Remove termites from the monitoring device into the collecting pan and introduce them into the top of the Baitube.

(Insert Graphic)

2. Inspection of the Baitube: Baitube devices are inspected by visually examining the device for termites. Once active termites are no longer found in all the Baitubes, or matrix is no longer being consumed, they can be replaced with a monitoring device: (Preceding deleted text added, in part, to paragraph 4 of the Monitoring section.) If termites are active in the Baitube and the matrix material is nearly or totally consumed (or if the matrix material appears to be degraded or moldy), replace it with another Baitube containing NAF-46 Recruit. If possible, gently tap the termites from the consumed used Baitube matrix device into the replacement device using the Self-Recruitment procedure described above. Baitubes should be inspected at least monthly while termites are actively feeding to maintain Recruit as a food source: It is not desirable to have the entire contents of the Baitube contents consumed before replacing it, as termites may forage elsewhere in search of food. Inspect adjacent monitoring device locations and initiate placement of Baitube devices in the soil or Sentricon stations v.t.en and where termites are found in monitoring devices.

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**WARRANTY DISCLAIMER**

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DowElanco warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. **DOWELANCO MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.**

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**INHERENT RISKS OF USE**

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It is impossible to eliminate all risks associated with use of this product. Lack of performance, or other unintended consequences, may result because of such factors as use of the product contrary to the label instructions (including adverse conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of DowElanco or the seller. All such risks shall be assumed by the buyer.

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**LIMITATION OF REMEDIES**

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The exclusive remedy for losses or damages resulting from the use of this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at DowElanco's election, one of the following:

- (1) Refund of purchase price paid by buyer or user for product bought, or
- (2) Replacement of amount of product used.

DowElanco shall not be liable for losses or damages resulting from handling or use of this product unless DowElanco is promptly notified of such loss or damage in writing. In no case shall DowElanco be liable for ~~consequential or incidental~~ consequential damages or losses.

The terms of the Warranty Disclaimer above and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of DowElanco or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

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