

# TURFTHOR WSP

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

Active Ingredient:	By Wt.
Imidacloprid	75.0%
Other Ingredients:	<u>25.0%</u>
TOTAL:	100.0%

Keep water soluble packets in outer container until immediately before use. Store in a cool, dry place but not below freezing (32°F).

EPA Reg. No. 82957-3 EPA Est. 81824-NC-001

## STOP - Read the label before use **KEEP OUT OF REACH OF CHILDREN** CAUTION

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

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

For product use information call 1-866-FOR-THOR (367-8467) or visit www.for-thor.com.

NET WEIGHT: As marked on container

Manufactured by:

ENSYSTEX III, Inc.

Fayetteville, NC 28303

	FIRST AID	
If swallowed	Call poison control center or doctor immediately for treatment advice.	
	Have person sip a glass of water if able to swallow.	
	Do not induce vomiting unless told to do so by the poison control center or doctor.	
	Do not give anything to an unconscious person.	
If on skin or	Take off contaminated clothing.	
clothing	Rinse skin immediately with plenty of water for 15 to 20 minutes.	
	Call a poison control center or doctor for treatment advice.	
If in eyes	Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.	
	Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.	
	Call a poison control center or doctor for treatment advice.	
HOTLINE NUMBER		
	ainer or label with you when calling a poison control center or doctor t. You may also contact 1-(866)-367-8467 for emergency medical	

## **NOTE TO PHYSICIAN**

No specific antidote is available. Treat the patient symptomatically.

## PRECAUTIONARY STATEMENTS **Hazards to Humans and Domestic Animals**

## CAUTION

Harmful if swallowed, inhaled or absorbed through skin. Causes eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing dust or vapor. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Keep children and pets off treated area until spray is dry.

Personal Protective Equipment: Applicators and other handlers must wear long-sleeved shirt and long pants, chemical resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC) or viton and shoes plus socks (PPE). Follow manufacturer's instructions for cleaning/maintaining PPE. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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

## **Environmental Hazards**

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

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

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

## **DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Consult your State or Tribe for requirements specific to that jurisdiction.

Do not apply more than 8.6 ounces (0.04 lbs.) of TURFTHOR WSP per acre per year for any type(s) or combination(s) of applications

Do not apply in greenhouses or nurseries.

Not for use on sod farm turf or grass grown for commercial seed production.

Not for use on bearing fruit or nut trees.

Do not apply through an irrigation system

## STORAGE AND DISPOSAL

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

**Pesticide Storage:** Keep out of reach of children and animals. Store in original containers only. Store in a cool (but not below freezing  $(32^{\circ}F)$ ), dry place and avoid excess heat. Handle and open container in a manner so as to prevent spillage. Do not put concentrate or dilute material into food or drink containers. Preferably store in a locked area

Exposure to moisture or excessive handling of water soluble packets can cause them to break. Store water soluble packets in original container preferably in a locked area. Do not cut the water soluble packets when opening container.

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

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

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

#### **DILUTION AND MIXING OF TURFTHOR WSP**

Each TURFTHOR WSP outer container contains a number of clear water soluble packets. Do not allow the packets to become wet at any time before putting them into a spray tank at the time of intended mixing. Handling the packets with wet hands or gloves or in a rough manner can cause them to leak. Reseal the outer container if water soluble packets are left inside after opening.

To mix, open the outer container and remove the required number of unopened packets needed for the gallon amount of solution to be mixed. Drop the required number of packets into the spray tank as it is being filled with water with the agitator operating. The elapsed time until the packets are fully dissolved depends on the degree of agitation and the temperature of the water with more time needed for lower levels of agitation and lower temperatures. Generally, a few minutes is sufficient time for the packets to completely dissolve.

Avoid using TURFTHOR WSP packets in tanks also containing products that contain boron or free chlorine. The packet material may react with the boron or chlorine to form a non-water soluble compound instead of dissolving into the water. However chlorinated water use is acceptable and will not cause this compound to form or reaction to occur. Because the packets are soluble in water but not oil, do not attempt to use packets in diesel oil or summer spray oils.

#### **APPLICATION FOR TURF PESTS**

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

## **Application Sites**

Permitted sites include but are not limited to lawns, grounds and landscapes at and/or around residences including multi-unit, commercial, office and shopping buildings and complexes, recreational areas, playgrounds, athletic fields, golf courses, cemeteries, airports and parks.

## Application Timing

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

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

## Post Application Watering and Mowing

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

## **Application Precautions and Preparations**

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

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

TURFTHOR WSP can be mixed with other insecticides, miticides, fungicides and fertilizers. Follow the label directions of all the products mixed, making sure not to exceed the labeled application rate of any individual product in the mixture. Any tank mixture that has not been tested before should be tested before full scale use by first mixing a small quantity of the mixture to ensure there is no physical or chemical incompatibility.

## **Application Equipment and Methods**

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

## **Turf Application Use Rates**

Us	e Rate Table for TURFTHOR WSP for Turf Applications
Use Rate	Ounces (Packets) per 1,000 sq. feet
Α	1.6 ounces (1 packet) per 8,250 to 11,000 sq. ft.
В	1.6 ounces (1 packet) per 8,250 sq. ft.

## **Turf Application Volumes**

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

#### Turf Pests Grouped by Use Rates

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

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

## **Application Recommendations Against Specific Turf Pests**

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

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

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

# FOLIAR AND BROADCAST APPLICATION FOR ORNAMENTAL PESTS

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

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

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

#### Application Sites

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

## **Application Preparation**

TURFTHOR WSP can be mixed with other insecticides, miticides, fungicides and fertilizers. Follow the label directions of all the products mixed, making sure not to exceed the labeled application rate of any individual product in the mixture. Any tank mixture that has not been tested before should be tested before full scale use by first mixing a small quantity of the mixture to ensure there is no physical or chemical incompatibility.

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

## **Foliar Application**

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

## **Ornamental Application to Control Ants**

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

## Foliar Application Volumes and Application Methods

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

Mixing Table for TURFTHOR WSP for Foliar Applications
1.6 ounces (1 packet) per 300 gallons of water.

## Ornamental Pests Controlled by Foliar Application

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

## **Broadcast Application**

## **Broadcast Application Use Rate**

Use Rate Table for TURFTHOR WSP for Broadcast Applications

1.6 ounces (1 packet) per 8,250 to 11,000 sq. ft

## **Broadcast Application Volume and Application Method**

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

Do not exceed the maximum label rate by applying solution to an area smaller than intended when it was mixed and diluted unless such under dosing will not result in an application rate in excess of the maximum label rate

## Ornamental Pests Controlled by Broadcast Application

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

# SOIL INJECTION AND SOIL DRENCH FOR ORNAMENTAL PESTS

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

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

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

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

## **Application Sites**

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

## **Application Preparation**

TURFTHOR WSP can be mixed with other insecticides, miticides, fungicides and fertilizers. Follow the label directions of all the products mixed, making sure not to exceed the labeled application rate of any individual product in the mixture. Any tank mixture that has not been tested before should be tested before full scale use by first mixing a small quantity of the mixture to ensure there is no physical or chemical incompatibility.

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

## Ornamental Pests Controlled by Soil Injection or Drench Application

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

#### Soil Injection for Trees

Soil Injection is not allowed in Nassau and Suffolk Counties of New York Soil Injection Use Rate for Trees

Use Rate Table for TURFTHOR WSP for Soil Injection for Trees

1.6 ounces (1 packet) per 24 to 48 inches of cumulative trunk diameter

## Soil Injection Volume and Application Method for Trees

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

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

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

## Soil Drench for Trees

## Soil Drench Use Rate for Trees

Use Rate Table for TURFTHOR WSP for Soil Drench for Trees

1.6 ounces (1 packet) per 24 to 48 inches of cumulative trunk diameter

## Soil Drench Volume and Application Method for Trees

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

#### Soil Injection for Shrubs

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

Soil Injection Use Rate for Shrubs

## Use Rate Table for TURFTHOR WSP for Soil Injection for Shrubs

1.6 ounces (1 packet) per 24 to 48 cumulative ft. of shrub height

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

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

#### Soil Drench for Shrubs

Soil Drench Use Rate for Shrubs

Use Rate Table for TURFTHOR WSP for Soil Drench for Shrubs

1.6 ounces (1 packet) per 24 to 48 cumulative ft. of shrub height

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

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

#### **ATTENTION**

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

Avoid runoff or puddling of irrigation water following application.

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

#### IMPORTANT READ BEFORE USE

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

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

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

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

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

TURFTHOR is a registered trademark of Ensystex III, Inc.

Revised 01/07

# Material Safety Data Sheet TURFTHOR WSP

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

## 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: TURFTHOR WSP CHEMICAL NAME: Imidacloprid

CHEMICAL FAMILY: Chloro-nicotinyl insecticide

COMPANY: Ensystex III, Inc.

ADDRESS: 2709 Breezewood Ave., Fayetteville, NC 28303

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

#### 2. COMPOSITION / INFORMATION ON INGREDIENTS

Imidacloprid 75.0% CAS# 138261-41-3

## 3. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW:** Caution. Harmful if swallowed, inhaled or absorbed through the skin. Causes eye irritation. Avoid contact with skin, eyes and clothing. Avoid breathing dust or vapor.

PHYSICAL STATE: Solid Powder

**ODOR:** None

APPEARANCE: Light brown

ROUTES OF EXPOSURE: Ingestion, eye contact, skin contact, skin

absorption, inhalation

IMMEDIATE EFFECTS

EYE: Causes eye irritation. Avoid contact with the eyes.

SKIN: Harmful if absorbed through skin. Avoid contact with skin and

clothing.

INGESTION: Harmful if swallowed. Do not take internally.

**INHALATION:** Harmful if inhaled. Avoid breathing dust or spray mist. **CHRONIC OR LONG TERM DELAYED EFFECTS:** May have target organ effects

## 4. FIRST AID MEASURES

**EYES:** Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice

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

**INGESTION:** Call a poison control center or doctor immediately for treatment advice. Rinse out mouth and have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

**INHALATION:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

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

## 5. FIRE FIGHTING MEASURES

FLASH POINT: N/A

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

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, Carbon dioxide, Hydrogen chloride gas, Nitrogen oxides.

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

## 6. ACCIDENTAL RELEASE MEASURES

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

**METHOD FOR CLEANING UP:** Do not walk through spilled material. Avoid generating dust. Use recommended protective equipment while carefully sweeping up or vacuuming spilled material. Place in covered container for reuse or disposal. Clean contaminated area. Do not allow material to enter streams, sewers, or other waterways. You may contact Ensystex III at 1-866-367-8467 for assistance if necessary. You may also contact Chemtrec at 1-800-424-9300 for assistance.

## 7. HANDLING AND STORAGE

**USER EXPOSURE:** Do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

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

WORK/HYGENIC PROCEDURES: Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. Remove and wash contaminated clothing before re-use. Before removing gloves clean them with soap and water. As soon as practical, wash thoroughly and change into clean clothing.

**MIN/MAX STORAGE TEMPERATURES:** Do not store or transport below 0°C/32°F. 30 day average temperature not to exceed 38°/100°F).

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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

PERSONAL PROTECTIVE EQUIPMENT: Applicators and other handlers must wear long-sleeved shirt and long pants, chemical resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC) or viton and shoes plus socks (PPE). Follow manufacturer's instructions for cleaning/maintaining PPE. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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

**EXPOSURE LIMITS:** May container Sodium Aluminum Silicate CAS# 1344-00-9 ACGIH TWA 2 mg/m3

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE:** Light brown **PHYSICAL STATE:** Powder

ODOR: None

WATER SOLUBILITY: Dispersible

## 10. STABILITY AND REACTIVITY

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

CONDITIONS TO AVOID: Exposure to moisture.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition products include carbon monoxide, hydrogen chloride (HCI), nitrogen oxides, hydrogen cyanide (hydrocyanic acid)

## 11. TOXICOLOGICAL INFORMATION

Only acute toxicity studies hve been conducted on this product as formulated. The non-acute information pertains to the active ingredient.

EYE EFFECTS: Mild eye irritation (rabbits)

**DERMAL LD**<sub>50</sub>: >5000 mg/kg (rat) **ORAL LD**<sub>50</sub>: 410 mg/kg (rat)

**INHALATION LC<sub>50</sub>:** >5323 mg/m<sup>3</sup> (rat) as a dust for 4 hours

SKIN SENSITIZATION: No (guinea pig)

SKIN IRRITATION: No (rabbit)

ACUTE ORAL TOXICITY MALE RAT: LD5O: 2,591 mg/kg ACUTE ORAL TOXICITY FEMAL RAT: LD5O: 1,858 mg/kg

ACUTE DERMAL TOXICITY MALE/FEMALE RAT: LD5O: > 2,000

mg/kg

ACUTE INHALATION TOXICITY MALE RAT: LC5O: 4-hr exposure to liquid aerosol: 2.65 mg/l (actual)

## CARCINOGENICITY:

IARC: Not listed NTP: Not listed OSHA: Not listed

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

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

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

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

## 12. ECOLOGICAL INFORMATION

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

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

The properties and characteristics of this chemical are similar to those of agrochemicals that have been detected in groundwater. Using this chemical in areas where the soil is permeable, and particularly where the water table is shallow.

## 13. DISPOSAL CONSIDERATIONS

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

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

## 14. TRANSPORT INFORMATION

DOT CLASSIFICATION: Not regulated.

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

## 15. REGULATORY INFORMATION

CERCLA REPORTABLE QUANTITY: No components listed.

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

Sara Title III – section 313 – Toxic Chemical Release Reporting:

## 16. OTHER INFORMATION

NFPA 704: (National Fire Protection Association)

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

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

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