



Product: TREE & SHRUB SYSTEMIC INSECT KILLER

EPA Reg. No.: 83070-3-869

Effective Date: 09/01/2007

### MATERIAL SAFETY DATA SHEET

Emergency Phone 800/535-5053

Size	Product Number	UPC Code
Pint	16316	0 49424 16316 8
Quart	16332	0 49424 16332 8

**Note:** Be sure to compare the EPA registration number as given on the MSDS with the EPA registration number as given on the label as some products have had the active ingredients changed without a corresponding change in the UPC number or in the item description.

#### 1. INGREDIENTS:

PRODUCT NAME: Enforce 1.47% FL  
CHEMICAL FAMILY: Chloronicotinyl insecticide  
CHEMICAL NAME: 1- [(6-chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine

#### 2. COMPOSITION, INFORMATION OF INGREDIENTS

COMPONENT	PERCENTAGE	CAS NUMBER	OSHA PEL	ACIGH TLV
Imidacloprid	1.47	138261-41-3	Not estab.	Not estab.

#### 3. HAZARDS IDENTIFICATION SUMMARY

(As defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200)

HEALTH HAZARDS: Mildly irritating to the eyes and skin. May be harmful if swallowed.  
PHYSICAL HAZARDS: Can decompose at high temperatures releasing toxic gases.  
ENVIRONMENTAL HAZARDS: Extremely toxic to fish, water organisms and bees. Keep out of waterways.

#### 4. FIRST AID MEASURES

IF SWALLOWED: Call physician or Poison Control Center immediately. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

IF IN EYES: Immediately flush eyes with water for at least 15 minutes. Get medical attention if irritation persists.

IF INHALED: Remove victim to fresh air. Get medical attention if symptoms develop.

IF ON SKIN: Remove contaminated clothing. Wash skin with plenty of soap and water. Get medical attention if irritation persists.

NOTE TO PHYSICIAN: No specific antidote available, treat symptomatically.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

#### 5. FIRE FIGHTING MEASURES

FLASHPOINT (method): > 100C.  
FLAMMABLE LIMITS (LFL-UFL): Unknown.  
FIRE AND EXPLOSION HAZARD: Can burn in fire, releasing irritating and toxic gases due to thermal decomposition or combustion.

EXTINGUISHING MEDIA: Use foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material.

FIRE FIGHTING INSTRUCTIONS: Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Dike and collect water



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FIRE FIGHTING EQUIPMENT:  
HAZARDOUS COMBUSTION  
PRODUCTS:

used to fight fire to prevent environmental damage due to run off. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water run off. Self-contained breathing apparatus with full facepiece.

Hydrogen cyanide, Hydrogen chloride, Carbon monoxide, Nitrogen oxides.

## 6. ACCIDENTAL RELEASE MEASURES

Clean up spills immediately, observing precautions in Section 8 of this document. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

SMALL SPILL: Absorb small spills on sand, vermiculite or other inert absorbent. Place contaminated material in appropriate container for disposal.

LARGE SPILL: Dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify, and scrape up for disposal. After removal, clean contaminated area thoroughly with water. Pick up wash liquid with additional absorbent and place in a disposal container.

This material should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.

## 7. HANDLING AND STORAGE

### KEEP OUT OF REACH OF CHILDREN!

HANDLING: Use only in a well-ventilated area. Minimize dust generation and accumulation.

STORAGE: Keep container closed when not in use. Keep away from food, feed and drinking water. Store in a well ventilated dry place away from heat.

## 8. EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS (8 HOUR TWA): (Refer to Section 3)

ENGINEERING CONTROLS: Proper ventilation is required when handling or using this product to keep exposure to airborne contaminants below the exposure limit. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

PERSONAL PROTECTIVE  
EQUIPMENT:

EYE PROTECTION - Safety goggles  
CLOTHING - Long-sleeved shirt and long pants, Shoes plus socks  
GLOVES - Chemical-resistant gloves made of any waterproof material such as latex or nitrile or polyvinyl chloride (PVC).  
RESPIRATOR – Not required when handled under normal conditions. When handling in enclosed areas with inadequate ventilation, use a dust/mist filtering respirator.

Discard clothing and other absorbent materials that have been heavily contaminated with this product. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.



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**USER SAFETY RECOMMENDATIONS:**

1. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
2. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

PHYSICAL DESCRIPTION:	Off-white viscous liquid
ODOR:	No appreciable odor
BULK DENSITY:	1.002 g/ml
pH:	6.0-6.5
VAPOR PRESSURE:	$1.5 \times 10^{-9}$ mmHg @ 20C
WATER SOLUBILITY:	Dispersable

**10. STABILITY AND REACTIVITY**

CHEMICAL STABILITY:	Stable, however may decompose if heated.
CONDITIONS TO AVOID:	Avoid temperatures above 100°F (38°C) for prolonged period of time. Strong exothermal reaction can occur above 390°F (200°C)
INCOMPATIBILITY WITH OTHER MATERIALS:	None known.
HAZARDOUS DECOMPOSITION PRODUCTS:	Hydrogen chloride, Oxides of nitrogen and carbon.
HAZARDOUS POLYMERIZATION:	Product will not undergo polymerization.

**11. TOXICOLOGICAL INFORMATION**

ACUTE TOXICITY:	
Oral LD50 (rat)	> 4,500 mg/Kg
Dermal LD50 (rat)	> 2,000 mg/Kg
Inhalation LC50 (rat)	> 5.0 mg/L
Eye Irritation (rabbit)	Mild
Skin Irritation (rabbit)	Slight
Sensitization (guinea pig)	Non-sensitizer
CARCINOGEN STATUS:	
OSHA	Not listed.
NTP	Not listed.
IARC	Not listed.
MUTAGENIC DATA:	Little or no evidence of mutagenic effects during <i>in vivo</i> or <i>in vitro</i> studies.
ADDITIONAL DATA:	No reproductive or teratogenic (birth defect) effects at normal exposure levels.

**12. ECOLOGICAL INFORMATION**

ENVIRONMENTAL SUMMARY:	This product is highly toxic to aquatic invertebrates. Do not apply directly to lakes, streams, rivers or ponds. Do not dump rinse water into sewers or other bodies of water. Apply this product only as specified on this label.
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FISH TOXICITY: (Technical)  
96 hour LC<sub>50</sub>, Rainbow trout 211 mg/L  
96 hour LC<sub>50</sub>, Bluegill unknown

AVIAN TOXICITY: (Technical)  
Oral LD<sub>50</sub>, Bobwhite quail 152 mg/Kg  
Oral LD<sub>50</sub>, Mallard duck unknown

BEE TOXICITY:  
Contact LD<sub>50</sub> Highly toxic

### 13. DISPOSAL CONSIDERATIONS

WASTE: Pesticide wastes are toxic. Dispose of in accordance with applicable Federal, state and local laws and regulations.

CONTAINER: Completely empty container into processing equipment. Then dispose of empty container in sanitary landfill or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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