SELECT SERVICES
PLANT HEALTH CARE · TREE CARE · PEST MANAGEMENT

NOTICE OF PESTICIDE APPLICATION

DATE OF APPLICATION: Monday, 11/23/260

LOCATION:

1. Trails Community Center
   1910 Spring Gate Ln.
   Las Vegas, NV 89134
   Exterior perimeter of community center building
   Exterior perimeter of fenced pool area
   Exterior perimeter of pool restroom building and pump building

PRODUCT & MANUFACTURER INFORMATION:

Product: Demand CS Insecticide

Manufacturer: Syngenta

EPA Reg. No. 100-1066

Active ingredients(S): Lambda-cyhalothrin

Precautionary statement: CAUTION! Hazard to humans and domestic animals. Harmful is absorbed through skin. Avoid contact with skin, eyes, or clothing. This product is extremely toxic to fish and aquatic invertebrates. This product is highly toxic to bees if exposed through direct treatment or residues on existing crops or weeds.

REASON FOR APPLICATION: General pest control

*Attached is the label and SDS sheet

GROUP 3 INSECTICIDE

Demand® CS
Insecticide

For use in, on and around buildings and structures for the control of listed pests, including on lawns, ornamental trees and shrubs around residential, institutional, public, commercial, agricultural and industrial buildings; and parks, recreational areas and athletic fields.

with iCAP™ technology

Do not use on golf course turf.

Active Ingredient:	
Lambda-cyhalothrin[1]	
(CAS No. 91465-08-6):	9.7%
Other Ingredients:	90.3%
Total:	100.0%

[1]Synthetic pyrethroid, capsule suspension (microencapsulated)

KEEP OUT OF REACH OF CHILDREN.

CAUTION/PRECAUCIÓN

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See additional precautionary statements and directions for use in booklet.

EPA Reg. No. 100-1066 EPA Est. 61282-WI-1

Product of the United Kingdom

SCP 1066A-L1N 1114

1 quart
Net Contents

FIRST AID	
If on skin or clothing	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 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 15-20 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.
If swallowed	• Call a poison control center or doctor immediately for treatment advice. • Do not give **any** liquid to the person. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If Inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
HOT LINE NUMBER For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call **1-800-888-8372**	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION/PRECAUCIÓN

Harmful if absorbed through skin. Avoid breathing spray mist or vapor. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling, and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash before reuse. Prolonged or frequently repeated skin contact may cause allergic skin reactions in some individuals.

Environmental Hazards

This product is extremely toxic to fish and aquatic invertebrates. To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters, or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run-off to water bodies or drainage systems. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Apply this product only as specified on this label. When making applications, care should be used to avoid household pets, particularly fish and reptile pets.

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 use this product in or on electrical equipment due to the possibility of shock hazard.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and 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.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and (2) Buyer and User assume the risk of any such use. TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA 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 SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

DIRECTIONS FOR USE

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

IMPORTANT: Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use on plants intended for aesthetic purposes or climatic modification and being grown in interior plantscapes, ornamental gardens or parks, or on lawns or grounds.

- Do not apply directly to impervious horizontal surfaces such as sidewalks, driveways, and patios except as a spot or crack-and-crevice treatment. During application, do not allow pesticide to enter or runoff into storm drains, drainage ditches, gutters or surface waters.
- All outdoor applications must be limited to spot or crack-and-crevice treatments only, except for the following permitted uses:
    1. Treatment to soil or vegetation around structures;
    2. Applications to lawns, turf, and other vegetation;
    3. Applications to building foundations, up to a maximum height of 3 feet above grade;
    4. Applications to underside of eaves, soffits, doors, or windows permanently protected from rainfall by a covering, overhang, awning, or other structure;
    5. Applications around potential pest entry points into buildings, when limited to a surface band not to exceed one inch in width;
    6. Applications made through the use of a coarse, low pressure spray to only those portions of surfaces that are directly above bare soil, lawn, turf, mulch or other vegetation, as listed on this label, and not over an impervious surface, drainage or other condition that could result in runoff into storm drains, drainage ditches, gutters, or surface waters, in order to control occasional invaders or aggregating pests.
- Do not water the treated area to the point of run-off.
- Do not make applications during rain.
- Do not apply directly to sewers or drains, or to any area like a gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur, except as directed by this label.

This product is restricted for use in the State of New York.

Resistance Management

Demand CS Insecticide is a Group 3 Insecticide that contains the active ingredient lambda-cyhalothrin. Due to the inherent risk of the development of resistance to any pesticide product, it is strongly advised that Demand CS Insecticide be used in a sound resistance-management program.

It is recommended that the following resistance management practices be followed, including, but not limited to:

- Rotating Demand CS Insecticide with products with different modes of action,
- Avoiding treatment of successive generations with Demand CS Insecticide, and
- Using labeled rates at specified spray intervals.

For additional information about implementing these or other resistance management practices, consult an Extension advisor or company representative.

INFORMATION: STRUCTURAL AND PERIMETER PEST CONTROL

For use as a surface, crack-and-crevice, or spot treatment in, on, and around buildings and structures and their immediate surroundings, and on modes of transport. Permitted areas of use include, but are not limited to, aircraft (cargo and other non-cabin areas only), apartment buildings, boiler rooms, buses, closets, correctional facilities, decks, entries, factories, fencing, floor drains (that lead to sewers), food granaries, food grain mills, food manufacturing, processing and serving establishments; furniture, garages, garbage rooms, greenhouses (non-commercial), hospitals, hotels and motels, houses, industrial buildings, laboratories, livestock/poultry housing, landscape vegetation, locker rooms, machine rooms, mausoleums, mobile homes, mop closets, mulch, nursing homes, offices, patios, pet kennels, porches, railcars, restaurants, storage rooms, schools, sewers (dry), stores, trailers, trees, trucks, utility passages, vessels, vestibules, warehouses, wineries and yards.

For indoor applications, retreat at 21-day intervals or as necessary to maintain control.

Mixing Instructions

Demand CS Insecticide is intended for dilution with water for application using hand-held or power-operated application equipment as a coarse spray for crack-and-crevice or spot and surface treatments. Application equipment that delivers low volume treatments, such as the Micro-Injector® or Actisol® applicator, may also be used to make crack-and-crevice or spot and surface treatments. Fill applicator tank with the desired volume of water and add Demand CS Insecticide. Close and shake before use in order to ensure proper mixing. Shake or re-agitate applicator tank before use if application is interrupted. Mix only amount required. A surface treatment of Demand CS Insecticide may be applied by using a paintbrush or other porous applicator attached to a handle.

Tank Mixing

Demand CS Insecticide may be tank-mixed with other currently registered pesticides unless expressly prohibited by the product label. To ensure compatibility, conduct a small volume mixing test with the other products. If mixed with sanitizers, add Demand CS Insecticide to the tank first. If other chemicals are added to the applicator tank, add Demand CS Insecticide last. If mixed with EC formulations, use within 24 hours. Fill tank to desired volume and continue to agitate while making applications.

Demand CS Insecticide may be tank-mixed with an Insect Growth Regulator (IGR) such as Archer® Insect Growth Regulator.

Observe all restrictions and precautions which appear on the labels of these products.

Foam Applications

Demand CS Insecticide may be converted to foam and the foam used to treat structural voids to control or prevent pests including ants, bees, termites (above ground only), wasps, or other arthropods harboring in walls, under slabs, or in other void areas.

RATES FOR STRUCTURAL PESTS (HAND APPLICATION EQUIPMENT)

Pests	Concentration of AI	Dilution Rate
Ants Bedbugs (adult) Bees Beetles Boxelder Bugs Carpenter Bees Carpet Beetles Centipedes Cigarette Beetles Clover Mites Cockroaches[1] Confused Flour Beetles Crickets Earwigs Firebrats Fleas[2] Flies Lesser Grain Borers Millipedes Mosquitoes Red Flour Beetles Rice Weevils Saw-toothed Grain Beetles Silverfish Sowbugs Spiders Termites (above ground only) Ticks Wasps	0.015–0.03%	0.015%: 0.2 fl oz (6 mL)/gal of water 0.03%: 0.4 fl oz (12 mL)/gal of water
Cockroaches[1] Crickets[6] Flies[5]* Litter Beetles[3] (such as Darkling, Hide, and Carrion) Mosquitoes[4] Pillbugs Scorpions Spiders[6] Spider Mites (Twospotted, Spruce) Ticks[6]	0.06%	0.8 fl oz (24 mL)/gal of water

*Not approved for use in California at the high rate.

[1] For cockroaches, the recommended rate for maintenance treatments is 0.015% and for clean-out treatments is 0.03%. For control of SEVERE infestations, use 0.06% rate.

[2] For outdoor use only and use 0.03% rate.

[3] For control of LIGHT beetle infestations, use 0.03% rate.

[4] For residual control, use 0.06% rate.

[5] Rates for flies may be increased to 0.06% when environmental conditions are severe and/or populations are high.

[6] For clean-out/severe infestations, use 0.06% rate.

SPECIFIC USE DIRECTIONS

Ants

Apply to any trails around doors and windows and other places where ants may be found. For best results, locate and treat nests. Where ants are trailing inside, apply as a residual surface treatment to active areas such as baseboards, corners, around pipes, in and behind cabinets, behind and under refrigerators, sinks, furnaces and stoves, cracks and crevices. When combining baits and residual surface insecticides, apply surface insecticides in cracks and crevices, and along baseboards, infested surfaces, and outside barrier treatments. Treatment of perimeter landscaping can reduce honeydew-producing insects and limit this ant food source. Use baits in other areas that are untreated by residual insecticides; also see **Outdoor Surfaces Use**.

Cockroaches, Crickets, Earwigs, Firebrats, Silverfish, and Spiders

Apply as a coarse, low-pressure spray to areas where these pests hide, such as baseboards, corners, storage areas, closets, around water pipes, doors and windows, attics and eaves, cabinets, behind and under refrigerators, furniture, sinks, furnaces and stoves, the underside of shelves, drawers and similar areas. Pay particular attention to cracks and crevices; also see **Outdoor Surfaces Use**.

Bedbugs

Clean floors and surfaces by vacuuming before applications. Apply as a coarse, low-pressure spray to harborage areas including crevices, baseboards, loose plaster, behind bed frames and headboards, beneath beds and furniture, and to bedsprings and bed frames. Do not apply to furniture surfaces or mattresses where people will be laying or sitting. Do not treat infested bedding, but remove and place in sealed plastic bags, and take for laundering and drying at high temperatures.

Bees, Flies, Mosquitoes, and Wasps

Apply directly to walls, ceilings, window screens, and other resting areas as a residual surface treatment. Demand CS Insecticide may be used inside residential buildings as well as in and around carports, garages, and storage sheds; also see **Outdoor Surfaces Use**. Use caution when treating nests of stinging insects as Demand CS Insecticide does not provide instant knockdown. Protective equipment for the applicator may be required. For best results, treat bee, wasp and hornet nests late in the day when most insects will be present. Allow 2-3 days for colony to die and retreat if necessary.

For mosquito control, apply as a structural perimeter spray to landscape plantings, turf, and building foundations to control mosquitoes. Yards or other frequented areas enclosed by landscaping can benefit from the creation of a mosquito barrier to reduce invading mosquitoes by the treatment of perimeter vegetation. Apply Demand CS Insecticide at specified rates in 2–5 gallons of water per 1,000 sq ft. Higher volumes applied result in better coverage and, as a rule, will improve control. Application to vegetation away from structures may require additional certification, e.g., in turf or ornamental categories. Consult your state regulatory agency for requirements.

Carpenter Bees

Apply coarse spray to thoroughly wet wood surfaces where bees have been previously active or to provide protection against further damage. Apply early in the spring to prevent bees from invading wood. When bees have infested wood, surface applications can help control embedded larvae and bees that emerge from the wood. Applications can be made on a monthly basis to maintain protection of treated areas.

Pantry Pests (i.e., Carpet beetle, Cigarette beetle, Confused flour beetle, Lesser grain borer, Red flour beetle, Rice weevil, and Saw-toothed grain beetle)

Apply to cupboards, shelving, and storage areas. Remove all utensils, uncovered foodstuffs (or any having original package opened), and shelf paper before making application. Allow treated surfaces to dry and cover shelves with clean paper before replacing any utensils, foodstuff, or other items. Any foodstuff accidentally contaminated with treatment solution should be destroyed.

Boxelder Bugs, Centipedes, Millipedes, Pillbugs, and Sowbugs

Apply around doors and windows and other places where these pests may be found or where they may enter premises. Treat baseboards, storage areas, and other locations. Apply barrier treatments to prevent infestation as described below; also see **Outdoor Surfaces Use**.

Fleas and Ticks

To control nuisance fleas and ticks (e.g., dog ticks) apply to kennels, yards, runs, and other areas where pets may frequent. For best coverage to control ticks, apply using a coarse fan spray to vegetation brush, branches, rock walls, and other areas near habitation where ticks may harbor or frequent. Treat entire area rather than making spot treatments, and retreat as necessary to maintain control. Do not apply to pasture or cropland, and do not allow animals and people access to treated areas until the deposit has dried. Applications can be made on a monthly basis, beginning in the spring and can continue until frost to control both larvae and adult ticks. Also, treat pets with a product registered for flea and tick control. See **Outdoor Surfaces Use**.

Cluster Flies

Apply in late summer or early fall before flies are observed alighting on surfaces. Apply thoroughly on siding, under eaves, and around windows and doors, paying particular attention to south-facing surfaces. Apply just enough dilution to adequately cover the area without excessive dripping or runoff. Volume can vary depending on the surface type treated. Heavy precipitation prior to frost may require retreatments to maintain protection. In winter and spring when flies become active and are emerging, interior crack-and-crevice and void treatments can help reduce the infestation, along with ULV or surface application in infested attics or unoccupied lofts.

Litter Beetles (Darkling, Hide, and Carrion Beetles) and Flies in Animal Housing (Such as Poultry Houses)

To control adult litter beetles, apply Demand CS Insecticide to walls and floors at cleanout, before reintroduction of animals. This will suppress beetles that escaped earlier treatment and will help delay onset of future infestations. Pay attention to areas where beetles frequently occur, such as walls, supports, cages, stalls, and around feeders. To help control flies, apply a directed application to horizontal surfaces and overhead areas and allow it to dry before reintroduction of animals; also see **Livestock/ Poultry Housing Structures and Pet Kennels**.

Application within Food-Handling Establishments (places other than private residences in which exposed food is held, processed, prepared, or served) including, but not limited to, areas for receiving, storage, packing (canning, bottling, wrapping, boxing), preparing foods, edible waste storage and enclosed processing systems (mills, dairies, edible oils, syrups), and serving areas.

Use as a crack-and-crevice or spot treatment in and around both food and nonfood areas. Apply in small amounts directly into cracks and crevices, using equipment capable of delivering a pin stream of insecticide, in points between different elements of construction, between equipment and floor, openings leading to voids and hollow spaces in walls, equipment and bases. Clean food contact surfaces and equipment with an effective cleaning compound and rinse with potable water before using.

Limit individual spot treatments to an area no larger than 20% of the treated surface. Individual spot treatments should not exceed 2 sq ft. Take extreme care that the product is not introduced into the air. Avoid contamination of food and food processing surfaces.

Application within Food-Serving Areas (facilities where foods are served, such as dining rooms)

Apply as a crack-and-crevice or spot treatment to selective surfaces such as baseboards, under elements of construction, and into cracks and crevices. Do not treat surfaces likely to be contacted by food. (Do not apply when facility is in operation or foods are exposed.) Food must be covered or removed in area being treated. Do not apply directly to food or allow applications to contaminate food.

Application of this product in the Food Areas and/or Food-Serving Areas of Food-Handling Establishments other than as a spot and/or crack-and-crevice treatment is not permitted. Limit the use of application equipment such as the Micro-Injector or Actisol applicator in food areas to crack-and-crevice treatment only.

Livestock/Poultry Housing Structures and Pet Kennels

Apply as a surface (including directed sprays) and/or crack-and-crevice treatment. Control is enhanced when interior and exterior perimeter applications are made in and around the livestock, poultry, and pet housing structures. Normal cleaning practices of the structure also must be followed along with applications of Demand CS Insecticide to effectively control the crawling and flying insect pests listed in the table.

For unoccupied areas of livestock barns or housing structures, apply to floors, vertical, and overhead surfaces where crawling or flying insect pests are or may be present. Cover feeders, waterers, and feed carts before application to prevent contamination. Do not apply to milk rooms or feed rooms. Pay attention to animal areas including stanchions, pipes, windows and doors, and areas where insect pests hide or congregate. Exterior applications to south facing walls and foundation perimeters can help prevent interior infestations of flying and crawling insect pests.

For poultry houses, apply to floor area (birds grown on litter) or to walls, posts, and cage framing (birds grown in cages). Also make applications into cracks and crevices around insulation. Reapply after each grow-out or sanitization procedure. Indoor control can be enhanced by making perimeter treatments around the outside of building foundations to prevent immigrating adult beetles. Apply in a uniform band 1–3 ft up and 2–6 ft out from foundation. Maintaining a year-round treatment program will prevent background populations from reaching problem levels.

Do not make interior applications of Demand CS Insecticide in areas of facility where animals other than cattle or calves are present. Allow treated surfaces to completely dry before restocking the facility.

DO NOT make applications to any animal feedstuffs, water, or watering equipment.

DO NOT contaminate any animal food, feed, or water in and around livestock, poultry, or pet housing when making applications.

Outdoor Surfaces Use

For control of ants, bees, centipedes, cockroaches, crickets, fleas, flies, millipedes, mosquitoes, scorpions, sowbugs, pillbugs, spiders, termites (above-ground only), ticks, wasps, and other similar perimeter arthropod pests. Apply with either hand or power application equipment as a residual treatment to ornamental plants next to foundations of buildings and to surfaces of buildings, porches, screens, window frames, eaves, patios, garages, refuse dumps, and other similar areas where these insect pests are active. For termites, this type of application is not intended as a substitute for soil treatment-labeled termiticides, mechanical alteration to control subterranean termites, or fumigation for extensive infestation of drywood termites or other wood-infesting insects. The purpose of such applications of Demand CS Insecticide for termites is to kill workers or winged reproductive forms which may be present in treated channels at the time of treatment. Such applications are not a substitute for mechanical alteration, soil treatment or foundation treatment, but are merely a supplement. This product is not recommended as sole protection against termites. For active termite infestations, get a professional inspection.

Structural Perimeter Barrier Treatments

Applying a continuous band of insecticide around a building foundation and around windows, doors, service line entrances, eaves, vents, and other areas can greatly reduce the potential for entry by crawling pests. To facilitate application, remove debris and leaf litter from next to the foundation, cut back vegetation and branches that touch the foundation, and move or rake back rocks, deep mulch, or other potential pest harborage next to the foundation. Apply the band up to 10-ft wide around the structure (or according to state regulations governing commercial pest control) and upwards along the foundation to 3 ft and around windows, doors, and roof overhangs. Apply as a coarse spray to thoroughly and uniformly wet the foundation and/or band area so that the insecticide will reach the soil or thatch level where pests may be active.

Amount of concentrate is dependent upon pest species (see pest table and comments), infestation levels, and service interval desired.

Rate Table for Structural Perimeter Barrier Applications

Application Rate of Demand CS Insecticide	Gallons of Water[1]	Area of Coverage (sq ft)
0.2 fl oz (6 mL)	1-5	800–1,600
0.4 fl oz (12 mL)	1-5	800–1,600
0.8 fl oz (24 mL)	1-5	800–1,600

[1]Application volume may be greater than 5 gal/800–1,600 sq ft if required under heavy vegetative or landscaping materials in order to obtain desired coverage.

Examples of Dilutions for Structural Perimeter Barrier Applications

Application Volume: Gallons of Solution/ 1,000 sq ft	Application Rate of Demand CS Insecticide/ 1,000 sq ft	Amount of Demand CS Insecticide to Dilute in Water According to Spray Tank Volumes		
		5 gallons	10 gallons	50 gallons
1	0.2 fl oz (6 mL) 0.4 fl oz (12 mL) 0.8 fl oz (24 mL)	1 fl oz (30 mL) 2 fl oz (60 mL) 4 fl oz (120 mL)	2 fl oz (60 mL) 4 fl oz (120 mL) 8 fl oz (240 mL)	10 fl oz (300 mL) 20 fl oz (600 mL) 40 fl oz (1200 mL)
2	0.2 fl oz (6 mL) 0.4 fl oz (12 mL) 0.8 fl oz (24 mL)	0.5 fl oz (15 mL) 1 fl oz (30 mL) 2 fl oz (60 mL)	1 fl oz (30 mL) 2 fl oz (60 mL) 4 fl oz (120 mL)	5 fl oz (150 mL) 10 fl oz (300 mL) 20 fl oz (600 mL)
5	0.2 fl oz (6 mL) 0.4 fl oz (12 mL) 0.8 fl oz (24 mL)	0.2 fl oz (6 mL) 0.4 fl oz (12 mL) 0.8 fl oz (24 mL)	0.4 fl oz (12 mL) 0.8 fl oz (24 mL) 1.6 fl oz (48 mL)	2 fl oz (60 mL) 4 fl oz (120 mL) 8 fl oz (240 mL)

Example calculation: to apply the mid-rate of Demand CS Insecticide at a volume of 5 gal/1,000 sq ft, mix 4 fl oz of concentrate in 50 gallons of water.

The percent active ingredient in the finished Demand CS Insecticide dilution can be calculated with the following formula:

> mL needed to add times 9.7% active in concentrate, divided by gallons finished dilution times 3,785 mL/gal = % active in dilution. (Example: 4 fl oz in 50 gallons is 120 mL, times 9.7 equals 1,164, and 50 gallons times 3,785 is 189,250. Dividing 1,164 by 189,250 equals 0.006% active in the tank dilution).

NOTE: Do not use water-based sprays of Demand CS Insecticide in conduits, motor housings, junction boxes, switch boxes, or other electrical equipment because of possible shock hazard. Thoroughly wash out sprayer and screen with water and detergent before using Demand CS Insecticide. Demand CS Insecticide has not stained or caused damage to painted or varnished surfaces, plastics, fabrics, or other surfaces where water applied alone causes no damage. However, treat a small area and allow it to dry to determine whether staining will occur.

LET TREATED SURFACES DRY BEFORE ALLOWING HUMANS AND PETS TO CONTACT SURFACES.

Do not use this product with oil.

Do not apply this product in any room being used as living, eating, sleeping, or recovery area by patients, the elderly, or infirm when they are in the room.

Do not apply to classrooms when in use.

Do not apply to institutions (including libraries, sports facilities, etc.) in the immediate area when occupants are present.

Do not apply this product to edible growing crops or stored raw agricultural commodities used for food or feed.

Do not allow applications to contact water inhabited by fish, such as in aquariums and ornamental fish ponds that are located in/around structures being treated.

INFORMATION: LAWNS/TURFGRASS AND ORNAMENTALS

Demand CS Insecticide may be used for applications to maintain indoor or outdoor areas where turf and ornamentals are grown, such as residential landscaped areas and non-residential landscapes around institutional, public, commercial and industrial buildings, parks, recreational areas, and athletic fields. Application rates for turf and ornamental applications of Demand CS Insecticide are lower than structural pest control rates, reflecting that treatment intervals are generally more frequent.

Applicators must ensure that they are certified in the necessary pesticide certification categories to allow application of Demand CS Insecticide away from structures, such as to turf and ornamental plantings. Structural pest control certification categories may limit the distance away from structures for pesticide application. Consult your state extension office or pesticide regulatory officials for further information.

IMPORTANT: Time application to flowering plants during periods when pollinating insects are not present, such as early morning or late evening.

Do not apply this product through any type of irrigation system.

Do not apply this product to edible crops.

Do not apply this product by aerial application.

Use of this pesticide adjacent to water may affect aquatic organisms. To protect these organisms, do not apply this pesticide within 25 ft of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds.

Do not make outdoor broadcast applications to turf and ornamentals when wind speed is 15 mph or greater.

In the State of New York, do not apply within 100 ft of coastal marshes or streams that drain into coastal marshes.

Mixing Instructions (Turf and Ornamental Dilutions)

Demand CS Insecticide is to be mixed with water and may be used in all types of standard application equipment. Fill applicator tank with the desired volume of water and add Demand CS Insecticide. Adjust water pH with a buffering agent if necessary to achieve a pH of 5-7. Slowly add Demand CS Insecticide to applicator tank water with maximum agitation. Close and shake or re-agitate applicator tank before use if application is interrupted. Make up only amount of treatment volume as required.

Tank Mixing (Turf and Ornamental Dilutions)

Demand CS Insecticide may be tank-mixed with other currently registered pesticides unless expressly prohibited by the product label. Adjuvants such as spreader stickers, wetting agents, and penetrants may also be added. To ensure compatibility, conduct a small volume mixing test with the other products. If other chemicals are added to the applicator tank, add Demand CS Insecticide last. Fill tank to desired volume and continue to agitate while making applications. If mixed with EC formulations, use within 24 hours.

Observe all restrictions and precautions which appear on the labels of these products.

Tank Dilution Rates for Ornamental Pests

Use	Pest	Amount of Demand CS Insecticide
Ornamentals in Residential Landscaped Areas and Landscaped Areas Around Institutional, Public, Commercial and Industrial Buildings, Parks, Recreational Areas, and Athletic Fields (Including Trees, Shrubs, Flowers, Evergreens, Foliage Plants and Groundcovers)	Ants (including Imported Fire Ants) Armyworms Azalea caterpillars Aphids Bagworms Black vine weevils (adult) Boxelder bugs Budworms California oakworms Cankerworms Cockroaches Crickets Cutworms Eastern tent caterpillars Elm leaf beetles European sawflies Fall webworms Flea beetles Forest tent caterpillars Gypsy moth larvae Japanese beetles (adults) June beetles (adults) Lace bugs Leaf-feeding caterpillars Leafhoppers Leafminers (adults) Leaf rollers Leaf skeletonizers Midges Mosquitoes Oleander moth larvae Pillbugs Pine sawflies Pine shoot beetles Pinetip moths Plant bugs Root weevils Sawflies Scale insects (crawlers) Spiders Spittlebugs Striped beetles Striped oakworms Thrips Tip moths Tussock moth larvae Wasps	1.5-5 fl oz/100 gal or 44-148 mL/100 gal
	Broadmites Brown soft scale California red scale (crawlers) Clover mites Mealybugs Pine needle scale (crawlers) Spider mites Whiteflies	3-5 fl oz/100 gal or 88-148 mL/100 gal

Example calculation: to prepare a mid-rate dilution of Demand CS Insecticide, mix 3 fl oz (88 mL) of concentrate in 100 gallons.

Start application to ornamentals prior to the establishment of high insect pest populations. Make reapplications as necessary to keep pest populations under control, using higher rates as pest pressure increases.

Apply at 7-day intervals if retreatment is necessary. Limit more frequent treatments to spot treatments. Recognize that as plants grow, new foliage will be unprotected until treated.

Do not apply more than 0.36 lb of the ai (52.4 fl oz of concentrate)/A per year.

Good spray coverage is necessary to provide the most effective level of control. Addition of a spreader-sticker at specified rates may enhance the control of insects on certain species of ornamentals having waxy, hard-to-wet foliage.

For spot treatments, use 0.5 fl oz Demand CS Insecticide per 1–2 1/2 gal of water.

Consult your state university or local Cooperative Extension Service office for specific pest control application timing in your area.

NOTE: While phytotoxicity testing has been carried out on a wide range of ornamental plants under various environmental conditions, and no phytotoxicity has been observed, certain cultivars may be sensitive to the final spray solution.

Pre-spray a selection of ornamental plants and observe them for 7–10 days prior to treating large areas if local use experience is unavailable. This is especially advisable if Demand CS Insecticide is being mixed with another product or ingredient besides water. See **Tank Mixing (Turf and Ornamental Dilutions)** instructions.

Scale: Thoroughly cover the plant with Demand CS Insecticide spray, including trunks, stems, twigs, and foliage for control of scale insects (crawler stage).

Bagworm: Apply Demand CS Insecticide when bagworm larvae begin to hatch. Spray directly on the larvae. Application is the most effective when the larvae are young.

Demand CS Insecticide Mixing Chart for Ornamental Insect Pest Control

Rate of Demand CS Insecticide	Amount of Demand CS Insecticide to Dilute in Water According to Spray Volumes				
	25 gallons	50 gallons	100 gallons	200 gallons	300 gallons
1.5 fl oz[1]	0.4 fl oz	0.8 fl oz	1.5 fl oz	3 fl oz	4.5 fl oz
3 fl oz[2]	0.8 fl oz	1.5 fl oz	3 fl oz	6 fl oz	9 fl oz
5 fl oz[3]	1.3 fl oz	2.5 fl oz	5 fl oz	10 fl oz	15 fl oz

[1] Equivalent to 3.5 mL/1,000 sq ft (or 5 fl oz/A) when applied at 8 gal/1,000 sq ft.

[2] Equivalent to 7 mL/1,000 sq ft (or 10 fl oz/A) when applied at 8 gal/1,000 sq ft.

[3] Equivalent to 9.5 mL/1,000 sq ft (or 14 fl oz/A) when applied at 8 gal/1,000 sq ft.

Power Spray Rates for Lawn and Turfgrass Pests

Use	Pests	Amount of Demand CS Insecticide
Lawns/Turfgrass Around Residential, Institutional, Public, Commercial and Industrial Buildings, Parks, Recreational Areas and Athletic Fields	Ants (including Imported Fire Ants) Armyworms Centipedes Crickets Cutworms Earwigs Fleas (adult) Grasshoppers Japanese beetles (adult) Millipedes Mites Mosquitoes (adult) Pillbugs Sod webworms Sow bugs Ticks (including species which transmit Lyme disease)	3.4-7 mL/ 1,000 sq ft or 5–10 fl oz/A
	Bluegrass billbugs (adult) Black turfgrass ataenius (adult) Chiggers Fleas (adult) Grubs (suppression) Hyperodes weevils (adult) Mole crickets (nymphs and young adults)	7 mL/ 1,000 sq ft or 10 fl oz/A

Example calculation: to treat listed turf pests at the mid-rate for Demand CS Insecticide of 7 mL/1,000 sq ft, determine gallons dilution/1,000 sq ft needed to cover turf. At 5 gallons/1,000 sq ft, add 7 mL ÷ 5 or 1.4 mL per gallon. For a 50-gallon tank, this would be equivalent to 70 mL or 2.5 fl oz in 50 gallons water.

Start application to turf prior to the establishment of high insect pest populations and significant turf damage. Make reapplications as necessary to keep pest populations under control, using higher rates as pest pressure increases.

Apply at 7-day intervals if retreatment is necessary. Limit more frequent treatments to spot treatments.

Do not apply more than 0.36 lb of ai (52.4 fl oz of concentrate)/A per year.

For spot treatments, use 0.5 fl oz of Demand CS Insecticide per 1–2.5 gallons of water.

Do not apply when turfgrass is waterlogged or when soils are saturated with water (i.e., will not accept irrigation).

KEEP CHILDREN AND PETS OFF TREATED AREAS UNTIL SPRAY HAS DRIED FOLLOWING THE APPLICATION.

Surface Insect Control (armyworm, cutworms, fleas, etc.)

Apply Demand CS Insecticide at specified rates in 2–5 gallons of water per 1,000 sq ft. The use of a spreader-sticker may be useful if high rainfall amounts are forecast, otherwise the addition of adjuvants is not necessary under normal conditions for surface insect control in turf. Delay watering or mowing for 12–24 hours for optimum control of surface-feeding insect pests.

Thatch-Inhabiting Insect Control (chinch bugs, billbugs, etc.)

Apply Demand CS Insecticide at specified rates in 2–10 gallons of water per 1,000 sq ft. The use of a nonionic wetting agent, penetrant or similar adjuvant is recommended. Lightly irrigate after application with up to 1/2 inch of water to move the Demand CS Insecticide into the thatch layer. If irrigation is not available, then use high water application rates for optimum results.

Subsurface Insect Control (mole crickets, grubs, etc.)

Apply Demand CS Insecticide at specified rates in 4–10 gallons of water per 1,000 sq ft. The use of a nonionic wetting agent, penetrant or similar adjuvant is strongly recommended. Use the highest water application rates possible with your sprayer. Apply Demand CS Insecticide to turf wet with dew, rain or irrigation. Water in immediately after application with 1/4–1/2 inch of water for optimum results.

Fire Ant Control

Treat individual mounds with a drench application using a watering can. Use 0.5 fl oz of Demand CS Insecticide per 2.5 gallons of water. Thoroughly soak each mound and a 3-ft diameter circle around each mound. Gently apply the mixture to avoid disturbing the mound. Disturbing the mound may cause the ants to migrate and reduce the effectiveness of the treatment. For best results, apply in early morning or late evening hours. Applications can be made on a monthly basis to maintain protection of treated areas.

Mosquito Control

Apply as a spray around landscape plantings, turf, and building foundations to control mosquitoes. Yards or other frequented areas enclosed by landscaping can benefit from the creation of a mosquito barrier to reduce invading mosquitoes by the treatment of perimeter vegetation. Apply Demand CS Insecticide at specified rates in 2–5 gallons of water per 1,000 sq ft. Higher volumes applied result in better coverage and, as a rule, will improve control.

Demand CS Insecticide Mixing Chart for Turf Insect Pest Control

(Demand CS Insecticide to add per 100 gal spray tank)

Rate of Demand CS Insecticide	Application Rate Per 1,000 sq ft of Turf				
	2 gallons	4 gallons	6 gallons	8 gallons	10 gallons
5 fl oz/A	5.7 fl oz	2.9 fl oz	1.9 fl oz	1.4 fl oz	1.2 fl oz
10 fl oz/A	11.5 fl oz	5.7 fl oz	3.8 fl oz	2.9 fl oz	2.3 fl oz

Conversion Rate: 1 fluid ounce (fl oz) equals 29.6 milliliters (mL).

STORAGE AND DISPOSAL

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

Pesticide Storage

Keep container closed when not in use. Do not store near food or feed. Shake well before use. Protect from freezing. In case of spill or leak on floor or paved surfaces, soak up with sand, earth, or synthetic absorbent. Remove to chemical waste storage area until proper disposal can be made.

Pesticide Disposal

Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

Container Handling

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of empty container in a sanitary landfill or by incineration.

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Actisol® is a registered trademark of Environmental Delivery Systems, Inc.

Micro-Injector® is a registered trademark of Whitmire Micro-Gen Research Laboratories, Inc.

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For non-emergency (e.g. current product information) call Syngenta Crop Protection at 1-800-334-9481.

Manufactured for:
Syngenta Crop Protection, LLC
P.O. Box 18300
Greensboro, North Carolina 27419-8300

SCP 1066A-L1N 1114

Safety Data Sheet

DEMAND® CS Insecticide

Date: 6/12/2015
Replaces: 1/28/2015

1. PRODUCT IDENTIFICATION

Product identifier on label: **DEMAND® CS Insecticide**
Product No.: A12690A
Use: Insecticide
Manufacturer: Syngenta Crop Protection, LLC
Post Office Box 18300
Greensboro NC 27419
Manufacturer Phone: 1-800-334-9481

Emergency Phone: 1-800-888-8372

2. HAZARDS IDENTIFICATION

Classifications:
Inhalation: Category 4
Skin Sensitizer: Category 1B
Specific Target Organ Toxicity: Repeated Category 2
Specific Target Organ Toxicity: Drowsiness Category 3
Specific Target Organ Toxicity: Respiratory Irritation Category 3

Signal Word (OSHA): Warning

Hazard Statements:
May cause an allergic skin reaction
Harmful if inhaled
May cause respiratory irritation
May cause drowsiness or dizziness
May cause damage to organs

Hazard Symbols:



Precautionary Statements:
Do not breathe mist, vapors, spray.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves, protective clothing, eye protection.
If on skin: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
Call a poison center, doctor or Syngenta if you feel unwell.
See Section 4 First Aid Measures.
Wash contaminated clothing before reuse.

Store locked up.

Dispose of contents and container in accordance with local regulations.

Other Hazard Statements: May cause temporary itching, tingling, burning or numbness of exposed skin, called paresthesia.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Common Name	CAS Number	Concentration
Xylene	Xylene	1330-20-7	<1%
1,2,4-Trimethylbenzene	1,2,4-Trimethylbenzene	95-63-6	<2.5%
Cumene	Cumene	98-82-8	<1%
1,2-Propanediol	Propylene Glycol	57-55-6	Trade Secret
Petroleum Solvent	Petroleum Solvent	64742-95-6	Trade Secret
Other ingredients	Other ingredients	Trade Secret	>85.8%
[1a(S*),3a(Z)]-cyano(3-phenoxyphenyl)methyl-3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate	Lambda-Cyhalothrin	91465-08-6	9.7%

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

Have the product container, label or Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison contol center or doctor, or going for treatment.

Ingestion: If swallowed: Call Syngenta (800-888-8372), a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so after calling 800-888-8372 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Eye Contact: If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

Skin Contact: If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

Inhalation: If inhaled: 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 Syngenta (800-888-8372), a poison control center or doctor for further treatment advice.

Most important symptoms/effects:

Allergic skin reaction

Drowsiness or dizziness

Respiratory irritation

Indication of immediate medical attention and special treatment needed:

There is no specific antidote if this product is ingested.

Treat symptomatically.

Persons suffering a temporary allergic reaction may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

Skin contact paresthesia effects (itching, tingling, burning or numbness) are transient, lasting up to 24 hours. Treat symptomatically.

Contains petroleum distillate - vomiting may cause aspiration pneumonia.

5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:

Use dry chemical, foam or CO2 extinguishing media. If water is used to fight fire, dike and collect runoff.

Specific Hazards:

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

Special protective equipment and precautions for firefighters:

Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:

Follow exposure controls/personal protection outlined in Section 8.

Methods and materials for containment and cleaning up:

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions in Protective Equipment Section. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

7. HANDLING AND STORAGE

Precautions for safe handling:

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Conditions for safe storage, including any incompatibilities:

Store locked up.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Occupational Exposure Limits:

Chemical Name	OSHA PEL	ACGIH TLV	Other	Source
Xylene	100 ppm TWA	100 ppm TWA; 150 ppm STEL	100 ppm TWA	NIOSH
1,2,4-Trimethylbenzene	Not Established	25 ppm TWA	25 ppm TWA	NIOSH
Cumene	50 ppm TWA (skin)	50 ppm TWA	Not Established	Not Applicable

Propylene Glycol	Not Established	Not Established	10 mg/m³ TWA	AIHA
Petroleum Solvent	Not Established	Not Established	100 mg/m³ (19 ppm) TWA	Manufacturer
Other ingredients	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Lambda-Cyhalothrin	Not Established	Not Established	0.04 mg/m³ TWA (skin)	Syngenta

Appropriate engineering controls:

Use effective engineering controls to comply with occupational exposure limits (if applicable).

Individual protection measures:

Ingestion:

Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Eye Contact:

Where eye contact is likely, use chemical splash goggles.

Skin Contact:

Where contact is likely, wear chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber or Viton), coveralls, socks and chemical-resistant footwear.
Stringent housekeeping measures are necessary to prevent translocation of the material from contaminated work surfaces to uncontaminated surfaces (railings, doors, etc.). Unprotected contact with such translocated material can result in paresthesia effects (see Section 11).

Inhalation:

A combination particulate/organic vapor respirator should be used until effective engineering controls are installed to comply with occupational exposure limits, or until exposure limits are established. Use a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P or HE filter.

Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Off-white liquid

Odor: Slight odor/typical aromatic solvent

Odor Threshold: Not Available

pH: 7.3 (1% w/w dilution in deionized water)

Melting point/freezing point: Not Applicable

Initial boiling point and boiling range: 212 °F

Flash Point (Test Method): > 212°F (Setaflash)

Flammable Limits (% in Air): Not Available

Flammability: Not Applicable

Vapor Pressure: Lambda-Cyhalothrin 1.5 x 10(-9) mmHg @ 68°F (20°C)

Vapor Density: Not Available

Relative Density: 1.036 @ 68°F (20°C)

Solubility (ies): Lambda-Cyhalothrin 0.004 mg/l

Partition coefficient: n-octanol/water: Not Available

Autoignition Temperature: Not Available

Decomposition Temperature: Not Available

Viscosity: Not Available

Other: None

10. STABILITY AND REACTIVITY

Reactivity: Not reactive.

Chemical stability: Stable under normal use and storage conditions.

Possibility of hazardous reactions: Will not occur.

Conditions to Avoid: None known.

Incompatible materials: None known.

Hazardous Decomposition Products: None known.

11. TOXICOLOGICAL INFORMATION

Health effects information

Likely routes of exposure: Dermal, Inhalation

Symptoms of exposure: Drowsiness or dizziness, Respiratory irritation

Delayed, immediate and chronic effects of exposure: Allergic skin reaction, Drowsiness or dizziness, Respiratory system effects, Paresthesia

Numerical measures of toxicity (acute toxicity/irritation studies (finished product))

Ingestion:	Oral (LD50 Rat) :	> 5000 mg/kg body weight
Dermal:	Dermal (LD50 Rat) :	> 2000 mg/kg body weight
Inhalation:	Inhalation (LC50 Rat) :	> 4.62 mg/l
Eye Contact:	Non-Irritating (Rabbit)	
Skin Contact:	Practically Non-Irritating (Rabbit)	
Skin Sensitization:	A weak skin sensitizer in animal tests.	

Reproductive/Developmental Effects

Lambda-Cyhalothrin : Not a developmental or reproductive toxicant.

Chronic/Subchronic Toxicity Studies

Lambda-Cyhalothrin : Reversible paresthesia (abnormal skin sensation).
Reversible clinical signs of neurotoxicity in mammals.

Carcinogenicity

Lambda-Cyhalothrin : No treatment-related tumors in rats or mice.

Chemical Name	NTP/IARC/OSHA Carcinogen
Xylene	IARC Group 3
1,2,4-Trimethylbenzene	No
Cumene	No
1,2-Propanediol	No
Petroleum Solvent	No
Other ingredients	No
[1a(S*),3a(Z)]-cyano(3-phenoxyphenyl)methyl-3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate	No

Other Toxicity Information

In humans, contact with exposed skin may result in temporary itching, tingling, burning or numbness, called paresthesia. The effect may result from splash, aerosol, or hot vapor contact, or transfer to the face from contaminated gloves and hands. The symptoms normally disappear within 24 hours. Face and genital areas are especially susceptible to this effect. Paresthesia involving the face is also known as "subjective facial sensation" or SFS.

Toxicity of Other Components

1,2,4-Trimethylbenzene

Inhalation of 1,2,4-trimethylbenzene at high concentrations can cause central nervous system depression, respiratory tract irritation, asphyxiation, cardiac stress and coma. Effects of chronic exposure to this solvent can include blood disorders (anemia, leukopenia) and kidney or liver damage.

Cumene

Exposure to cumene vapors may cause irritation to eyes, skin, and respiratory tract. Cumene may also cause headaches, dizziness, anesthesia, drowsiness, unconsciousness and other central nervous system effects. Prolonged exposure to high concentrations (>100 PPM) may result in liver, kidney or lung damage.

Other ingredients

Not Applicable

Petroleum Solvent

The supplier reports that high vapor/aerosol concentrations (> 1000 ppm) are irritating to the eyes and the respiratory tract, may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness and other central nervous system effects.

Propylene Glycol

Reported to cause central nervous system depression (anesthesia, dizziness, confusion), headache and nausea. Also, eye irritation may occur with lacrimation but no residual discomfort or injury. Prolonged contact to skin may cause mild to moderate irritation and possible allergic reactions. Chronic dietary exposure caused kidney and liver injury in experimental animals.

Xylene

Inhalation of xylene at high concentrations can cause central nervous system depression, respiratory tract irritation, asphyxiation, cardiac stress and coma.

Target Organs

Active Ingredients

Lambda-Cyhalothrin : Liver, nervous system

Inert Ingredients

1,2,4-Trimethylbenzene: CNS, liver, kidney, blood, respiratory tract, skin, eye

Cumene: Skin, eye, liver, respiratory tract, kidney, CNS

Other ingredients: Not Applicable

Petroleum Solvent: Eye, respiratory tract, CNS

Propylene Glycol:	CNS, kidney, liver
Xylene:	CNS, respiratory tract, skin

12. ECOLOGICAL INFORMATION

Eco-Acute Toxicity

Lambda-Cyhalothrin :

Fish (Rainbow Trout) 96-hour LC50 0.19 ppb

Bird (Mallard Duck) LD50 Oral > 3950 mg/kg

Invertebrate (Water Flea) 48-hour EC50 0.04 ppb

Environmental Fate

Lambda-Cyhalothrin :

The information presented here is for the active ingredient, lambda-cyhalothrin.
Not persistent in soil or water. Immobile in soil. Sinks in water (after 24 h).

13. DISPOSAL CONSIDERATIONS

Disposal:

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Not Applicable

Listed Waste: Not Applicable

14. TRANSPORT INFORMATION

DOT Classification

Ground Transport - NAFTA
Containers < 450 liters: Not regulated
Containers > 450 liters:
Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Lambda-Cyhalothrin)
Hazard Class or Division: Class 9
Identification Number: UN 3082
Packing Group: PG III

Comments

Water Transport - International
Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Lambda-Cyhalothrin), Marine Pollutant
Hazard Class or Division: Class 9
Identification Number: UN 3082
Packing Group: PG III

Air Transport
Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Lambda-Cyhalothrin)
Hazard Class or Division: Class 9
Identification Number: UN 3082
Packing Group: PG III

15. REGULATORY INFORMATION

Pesticide Registration:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Caution: Harmful if absorbed through skin. Avoid breathing spray mist or vapor. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling, and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash before reuse. Prolonged or frequently repeated skin contact may cause allergic skin reactions in some individuals.

EPA Registration Number(s):

100-1066

EPCRA SARA Title III Classification:

Section 311/312 Hazard Classes: Acute Health Hazard
Chronic Health Hazard

Section 313 Toxic Chemicals: Xylene <1% (CAS No. 1330-20-7)
1,2,4-Trimethylbenzene <2.5% (CAS No. 95-63-6)
Cumene <1% (CAS No. 98-82-8)

CERCLA/SARA 304 Reportable Quantity (RQ):

Report product spills > 520 gal. (based on xylene [RQ = 100 lbs.] content in the formulation)

RCRA Hazardous Waste Classification (40 CFR 261):

Not Applicable

TSCA Status:

Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

NFPA Hazard Ratings		HMIS Hazard Ratings	
Health:	2	Health:	2
Flammability:	1	Flammability:	1
Instability:	0	Reactivity:	0

Syngenta Hazard Category: C,S

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme
*	Chronic

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 7/14/1999
Revision Date: 6/12/2015 Replaces: 1/28/2015
Section(s) Revised: 2, 4, 11

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.