

PO Box 620635
Las Vegas, NV 89162
Phone 702-457-6700
Fax 702-202-2096



SERVICE YOU CAN BEE-LIEVE IN
20 YEARS OF BEE REMOVAL EXPERIENCE

Lic#: 4924
www.beemasterlv.com
beemasterlv@yahoo.com

NOTICE OF PESTICIDE APPLICATION

To protect the public and continue to nurture our local ecosystem, Bee Master Of Las Vegas, Inc. prioritizes live relocation of bees when appropriate during our inspections on any Summerlin Council property.

Any of the following three pesticides may be used during our inspections.

PRODUCT & MANUFACTURER INFORMATION:

Product: Talstar P Professional Insecticide

Manufacturer: FMC

EPA Reg. No. 279-3206

Active ingredients(S): Bifenthrin 7.9%

Precautionary statement: CAUTION! Harmful if swallowed, inhaled or absorbed through skin. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove contaminated clothing and wash before reuse.

REASON FOR APPLICATION: General pest control

*Attached is the label and SDS sheet

PO Box 620635
Las Vegas, NV 89162
Phone 702-457-6700
Fax 702-202-2096



SERVICE YOU CAN BEE-LIEVE IN
20 YEARS OF BEE REMOVAL EXPERIENCE

Lic#: 4924
www.beemasterlv.com
beemasterlv@yahoo.com

PRODUCT & MANUFACTURER INFORMATION:

Product: D-Foam Insecticide
Manufacturer: FMC
EPA Reg. No. 279-3443
Active ingredients(S): Deltamethrin 0.06%

PRECAUTIONARY STATEMENTS Hazards to Humans & Domestic Animals
CAUTION Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

REASON FOR APPLICATION: General pest control
*Attached is the label and SDS sheet

PRODUCT & MANUFACTURER INFORMATION:

Product: CB-80 Insecticide
Manufacturer: FMC
EPA Reg. No. 279-3393
Active ingredients(S): Pyrethrins 0.50% & Piperonyl Butoxide 4.00%

PRECAUTIONARY STATEMENTS Hazards to Humans & Domestic Animals
CAUTION Contains Petroleum Distillate. Causes moderate eye irritation. Harmful if swallowed, inhaled, or absorbed through the skin. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Remove and wash contaminated clothing before reuse.

REASON FOR APPLICATION: General pest control
*Attached is the label and SDS sheet



PROFESSIONAL INSECTICIDE

To control pests indoors and outdoors on residential, institutional, public, commercial, and industrial buildings, greenhouses, animal confinement facilities/livestock premises, kennels, food handling establishments, and lawns, ornamentals, parks, recreational areas and athletic fields.

When used as a termiticide, individuals/firms must be licensed by the state to apply termiticide products. States may have more restrictive requirements regarding qualifications of persons using this product. Consult the pest control regulatory agency of your state prior to use of this product.

Provides up to 1 month residual control of house flies
Kills fleas for up to 3 months

EPA Reg. No. 279-3206	EPA Est. 279-NY-1
Active Ingredient:	By Wt.
Bifenthrin*	7.9%
Other Ingredients:	92.1%
	100.0%

Talstar® P Professional Insecticide contains 2/3 pound active ingredient per gallon.

*Cis isomers 97% minimum, trans isomers 3% maximum.

KEEP OUT OF REACH OF CHILDREN CAUTION



FMC Corporation
2929 Walnut Street
Philadelphia PA 19104

Net Contents: 1 Gallon

FIRST AID	
If swallowed	<ul style="list-style-type: none"> • 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 by mouth to an unconscious person.
If inhaled	<ul style="list-style-type: none"> • 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
If on skin or clothing	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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.
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-(800)-331-3148 for Emergency Assistance.	
NOTE TO PHYSICIAN	
This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.	
For Information Regarding the Use of this Product Call 1-800-321-1FMC (1362).	

PRECAUTIONARY STATEMENTS Hazards to Humans (and Domestic Animals) CAUTION

Harmful if swallowed, inhaled or absorbed through skin. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove contaminated clothing and wash before reuse.

All pesticide handlers (mixers, loaders and applicators) must wear long-sleeved shirt and long pants, socks, shoes and chemical-resistant gloves. After the product is diluted in accordance with label directions for use, and/or when mixing and loading using a closed spray tank transfer system (such as an in-line injector system), shirt, pants, socks, shoes and water-proof gloves are sufficient. In addition, all pesticide handlers must wear a respiratory protection device¹ when working in a non-ventilated space. All pesticide handlers must wear protective eyewear when working in non-ventilated space.

¹Use one of the following NIOSH approved respirator with any R, P or HE filter or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P or HE prefilter.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

<p>User Safety Recommendations: Users should:</p> <ul style="list-style-type: none"> • 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 outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards

This pesticide is extremely toxic to fish and aquatic invertebrates. Drift and run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. Care should be used when spraying to avoid fish and reptile pets in/around ornamental ponds.

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 to avoid run off to water bodies or drainage systems.

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 to drift to blooming crops if bees are foraging the treatment area.

Physical and Chemical Hazards

Do not apply water-based dilutions of Talstar® P Professional Insecticide to electrical conduits, motor housings, junction boxes, switch boxes or other electrical equipment because of possible shock hazard.

Index

Applications:	
Above ground termite control	9
Animal confinement facilities, kennels	6
Ant control	4
Ant and Fire Ant Mounds	4
Carpenter Ants Indoors	4
Carpenter Ants Outdoors	4
Nuisance Ants Indoors	4
Nuisance Ants Outdoors	4
Food/Feed handling establishments	6
Greenhouses and interiorscapes	11
Indoor	5
Ants	6
Bedbugs	5
Bees and wasps	6
Boxelder bugs, centipedes, earwigs, beetles, millipedes, pillbugs, sowbugs, stink bugs	6
Cockroaches, crickets, firebrats, scorpions, silverfish, spiders, ticks	5
Fleas	6
Lawns	9
Livestock Premises	6
Mosquito control	5
Ornamentals and trees	10
Outside surfaces and around buildings	4
Under Slabs	5
Wood Infesting Insects and Nuisance Pests	4
Stored products pests	5
Specific pest control applications:	
Crawlspace	6
Posts, poles, and other construction	6
Underground services	6
Wood-in-place to control wood infesting insects	6
Subterranean termite control	6
Structures with wells/cisterns inside foundations	7
Subterranean termite control, pre-construction	8
Horizontal barriers	8
Vertical barriers	8
Subterranean termite control, post-construction	8
Accessible crawl spaces	8
Application with termite baits	9
Basements	8
Foam applications	9
Foundations	8
Inaccessible crawl spaces	9
Masonry voids	9
Sand barrier Installation and Treatment	9
Slabs	8
Dilution chart	3
Environmental hazards	2
First Aid	1
Application Instructions	3
Ingredients	1
Physical and chemical hazards	2
Precautionary statements- human and animal hazards	1
Resistance management	3
Storage and disposal	3
Use Precautions	11
Warranty	11

DIRECTIONS FOR USE

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

Do not apply a broadcast application to interior surfaces of homes.

Do not apply by air.

Do not apply in plant nurseries.

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

Not for use on sod farm turf, golf course turf, or grass grown for seed.

Do not water treated area to the point of run-off.

Do not make applications during rain.

Application is prohibited directly into sewers or drains, or to any area like a gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur. Do not allow the product to enter any drain during or after application.

Additional Application Restrictions for Residential Outdoor Surface and Space Sprays:

All outdoor applications, if permitted elsewhere on this label, must be limited to spot or crack-and-crevice treatments only, except for the following permitted uses, if allowed elsewhere on this label:

- Applications to soil or vegetation, as listed on this label, around structures;
- Applications to lawns, turf, and other vegetation, as listed on this label;
- Applications to the side of a building, up to a maximum height of 3 feet above grade;
- Applications to underside of eaves, soffits, doors, or windows permanently protected from rainfall by a covering, overhang, awning, or other structure;
- Applications around potential pest entry points into buildings, when limited to a surface band not to exceed one inch in width;
- 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.

AGRICULTURE USE REQUIREMENTS*

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as, plants, soil, or water is:

- Coveralls
- Chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or neoprene rubber or polyvinyl chloride or viton.
- Shoes plus socks

Do not apply this product in a way that will contact workers or other persons either directly or through drift. Only protected handlers may be in the area during application. For any requirement specific to your State or Tribe, consult the State/Tribal agency responsible for pesticide regulation.

For California

Greenhouse Applicators must wear:

- Full body chemical-resistant protective suit (such as barrier laminate, butyl rubber, nitrile rubber, polyvinyl chloride, or equivalent).

Reapplication Interval: Reapplications to greenhouses must be at intervals of 30 days or longer.

Greenhouse Harvesters must wear:

- Regular length gloves plus a long sleeved shirt or elbow-length (gauntlet type) gloves during the 30 days following application.

*These requirements apply only to the greenhouse uses on this label

NON-AGRICULTURE USE REQUIREMENTS**

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standards for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries and greenhouses.

Do not allow people or pets on treated surfaces until the spray has dried.

**These requirements apply to all other non-greenhouse uses on this label

Use Directions for Container

1. Remove the measuring chamber cap and induction seal. Replace the cap and securely tighten. Tip container until liquid fills measuring chamber.
2. Return container to level position. No adjustment is needed.
3. Remove measuring chamber cap and dispense into proper application equipment.

For multiple dose measuring: Remove fill chamber cap and dispense according to markings on side of bottle.

STORAGE AND DISPOSAL

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

Pesticide Storage: Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use replace lids and close tightly. Do not put concentrate or dilute material into food or drink container.

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

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

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

Container Disposal:

Container Handling: Non-refillable container. Do not reuse or refill this container. Triple rinse as follows: (For containers less than 5 gallons) Empty the contents into application equipment or a mix tank and drain for 10 seconds after flow begins to drip. Fill 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 or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling, if available or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

(For containers greater than 5 gallons) Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Returnable/Refillable Sealed Container: Refill this container with pesticide only. Do not reuse this container for any other purpose. Do not rinse container. Do not empty remaining formulated product. Do not break seals. Return intact to point of purchase. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

Talstar® P Professional Insecticide Dilution Chart

			Fluid Ounces of Talstar P Professional Diluted to these Volumes of Finished Spray			
Applic. Volume:		Applic. Rate:	1 Gallon	5 Gallons	10 Gallons	100 Gallons
% a.i.	Gal/1000 sq. ft.	Fl. oz./1000 sq. ft.	fl. oz.	fl. oz.	fl. oz.	fl. oz.
0.008	1.0	0.125	0.125	0.63	1.25	12.5
0.011	1.0	0.18	0.18	0.90	1.8	18.0
0.015	1.0	0.25	0.25	1.25	2.5	25.0
0.020	1.0	0.33	0.33	1.67	3.33	33.3
0.031	1.0	0.5	0.5	2.5	5.0	50.0
0.041	1.0	0.67	0.67	3.33	6.67	66.7
0.046	1.0	0.75	0.75	3.75	7.5	75.0
0.062	1.0	1.0	1.0	5.0	10.0	100.0
0.004	2.0	0.125	-	0.31	0.63	6.3
0.006	2.0	0.18	-	0.45	0.90	9.0
0.008	2.0	0.25	0.13	0.63	1.25	12.5
0.010	2.0	0.33	0.17	0.83	1.65	16.5
0.015	2.0	0.5	0.25	1.25	2.5	25.0
0.021	2.0	0.67	0.33	1.67	3.35	33.5
0.023	2.0	0.75	0.38	1.88	3.75	37.5
0.031	2.0	1.0	0.5	2.5	5.0	50.0
0.003	3.0	0.125	-	0.21	0.42	4.2
0.004	3.0	0.18	-	0.30	0.60	6.0
0.005	3.0	0.25	-	0.42	0.83	8.3
0.007	3.0	0.33	0.11	0.55	1.10	11.0
0.010	3.0	0.5	0.17	0.83	1.67	16.7
0.014	3.0	0.67	0.22	1.11	2.23	22.3
0.015	3.0	0.75	0.25	1.25	2.5	25.0
0.021	3.0	1.0	0.33	1.67	3.33	33.3
0.002	4.0	0.125	-	0.16	0.31	3.1
0.003	4.0	0.18	-	0.23	0.45	4.5
0.004	4.0	0.25	-	0.31	0.63	6.3
0.005	4.0	0.33	-	0.41	0.83	8.3
0.005	4.0	0.5	0.13	0.63	1.25	12.5
0.008	4.0	0.67	0.17	0.84	1.67	16.7
0.010	4.0	0.75	0.19	0.94	1.88	18.8
0.012	4.0	1.0	0.25	1.25	2.5	25.0
0.015	4.0					
0.002	5.0	0.125	-	0.13	0.25	2.5
0.002	5.0	0.18	-	0.18	0.36	3.6
0.003	5.0	0.25	-	0.25	0.5	5.0
0.004	5.0	0.33	-	0.33	0.67	6.7
0.006	5.0	0.5	0.1	0.5	1.0	10.0
0.008	5.0	0.67	0.13	0.67	1.33	13.3
0.009	5.0	0.75	0.15	0.75	1.5	15.0
0.012	5.0	1.0	0.2	1.0	2.0	20.0
0.001	10.0	0.125	-	-	0.13	1.3
0.001	10.0	0.18	-	-	0.18	1.8
0.002	10.0	0.25	-	0.13	0.25	2.5
0.002	10.0	0.33	-	0.17	0.33	3.3
0.003	10.0	0.5	-	0.25	0.5	5.0
0.004	10.0	0.67	-	0.33	0.67	6.7
0.005	10.0	0.75	-	0.38	0.75	7.5
0.006	10.0	1.0	0.1	0.5	1.0	10.0

1 fluid oz. = 29.57 ml = 2 tablespoons = 6 teaspoons

Do not use household utensils to measure Talstar® P Professional Insecticide.

Note: Higher finished volume should be applied to penetrate thatch, mulch, brush, and porous surfaces. Lower finished volumes can be used indoors and for non-porous surfaces. Do not apply more than 1 oz. Talstar Professional per 1,000 square feet.

Application Instructions

Talstar® P Professional Insecticide formulation mixes readily with water and other aqueous carriers.

Talstar® P Professional Insecticide may be tank-mixed with adjuvants, and with other pesticides, including insect growth regulators. When tank mixing Talstar® P Professional Insecticide with other pesticides, observe all precautions and limitations on each separate product label. The physical compatibility of Talstar® P Professional Insecticide may vary with different sources of pesticide products, and local cultural practices. Any tank mixture which has not been previously tested should be prepared on a small scale (pint or quart jar), using the proper proportions of pesticides and water to ensure the physical compatibility of the mixture.

The following procedure is recommended for preparation of a new tank mix, unless specified otherwise in label directions: (1) Add wettable powders to tank water, (2) Agitate, (3) Add liquids and flowables, (4) Agitate, (5) Add emulsifiable concentrates, and (6) Agitate. If a mixture is found to be incompatible following this order of addition, try reversing the order of addition, or increase

Product Information

Talstar® P Professional Insecticide controls a wide spectrum of insects and mites on trees, shrubs, foliage plants, non-bearing fruit and nut trees, and flowers in greenhouses, interiorscapes including hotels, shopping malls, office buildings, etc., and outdoor landscapes, such as around residential dwellings, parks, institutional buildings, recreational areas, athletic fields and home lawns. Non-bearing crops are perennial crops that will not produce a harvestable raw agricultural commodity during the season of application. Talstar® P Professional Insecticide may also be used in feed and food handling establishments, animal confinement facilities, kennels, confined animal feeding operations, livestock premises, and in/around/under structures.

Resistance: Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or state pest management authorities for details.

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and suspect that resistance is a reasonable cause, immediately consult your local company representative or pest management advisor for the best alternative method of control for your area.

the volume of water. **Note: If the tank-mixture is found to be compatible after increasing the amount of water, then the sprayer will need to be recalibrated for a higher volume application. Do not allow tank mix to stand overnight.**

Formula for Determining the Active Ingredient Content of the Finished Spray Mixture: The following formula may be used to determine the percent active ingredient that is in the spray tank after mixing Talstar® P Professional Insecticide:

$$\frac{(7.9)(\text{Fl. Oz. of Talstar P Professional added to tank})}{(\text{Gallons of finished spray mix})(128)} = \text{Percent Active Ingredient of spray mix}$$

APPLICATION DIRECTIONS

ANT CONTROL

Nuisance Ants Indoors: For best results, locate and treat ant nests. Dilute 0.5 to 1.0 fluid oz. of Talstar® P Professional Insecticide per gallon of water and apply at the rate of one gallon of dilution per 1,000 square feet as a crack and crevice or spot treatment to areas where ants have been observed or are expected to forage. These areas include, but are not limited to, baseboards, in and behind cabinets, under and behind dishwashers, furnaces, refrigerators, sinks and stoves, around pipes, cracks and crevices and in corners. Particular attention should be given to treating entry points into the home or premises such as around doors and windows. When using Talstar® P Professional Insecticide in combination with baits, apply Talstar® P Professional Insecticide as instructed above, and use baits in other areas that have not been treated with Talstar® P Professional Insecticide

Nuisance Ants Outdoors: For best results, locate and treat ant nests. Apply Talstar® P Professional Insecticide to ant trails around doors and windows and other places where ants have been observed or are expected to forage. Apply a perimeter treatment using either low or high volume applications described in the "Pest Control on Outside Surfaces and Around Buildings" section of this label. The higher dilutions and/or application volumes, as well as more frequent applications, may be necessary when treating concrete surfaces for ant control. Maximum control is generally achieved using the following procedure:

The following procedure must be followed to help achieve maximum control of the pest:

- 1) Treat non-porous surfaces only in areas protected from rainfall and spray from sprinklers with low volume applications using 0.5 to 1.0 fluid oz. of Talstar® P Professional Insecticide per gallon of water and applying this dilution at the rate of one gallon per 1,000 square feet.
- 2) Treat porous surfaces and vegetation with high volume applications (usually 5 to 10 finished gallons per 1,000 square feet) using dilutions that are calculated to deliver 0.5 to 1.0 fluid oz. of Talstar® P Professional Insecticide per 1,000 square feet (refer to the Talstar® P Professional Insecticide Dilution Chart).
- 3) For maximum residual control, dilute 1.0 fluid oz of Talstar P Professional Insecticide per gallon of water and apply at a rate of up to 10 gallons of dilution per 1,000 square feet.

Carpenter Ants Indoors: Dilute 0.5 to 1.0 fluid oz. of Talstar® P Professional Insecticide per gallon of water and apply at the rate of one gallon of dilution per 1,000 square feet as a crack and crevice or spot treatment to areas where carpenter ants have been observed or are expected to forage. These areas include, but are not limited to, baseboards, in and behind cabinets, under and behind dishwashers, furnaces, refrigerators, sinks, and stoves, around pipes, cracks and crevices and in corners. Particular attention should be given to treating entry points into the home or premises such as around doors and windows. Spray or foam into cracks and crevices or drill holes and spray, mist or foam into voids where carpenter ants or their nests are present. When using Talstar® P Professional Insecticide in combination with baits, apply Talstar® P Professional Insecticide as instructed above, and use baits in other areas that have not been treated with Talstar® P Professional Insecticide.

Carpenter Ants Outdoors: Apply Talstar® P Professional Insecticide to carpenter ant trails around doors and windows and other places where carpenter ants have been observed or are expected to forage. For best results, locate and treat carpenter ant nests. Apply a perimeter treatment using either low or high volume applications described in the "Pest Control on Outside Surfaces and Around Buildings" section of this label. The higher dilutions and/or application volumes, as well as more frequent applications, may be necessary when treating concrete surfaces for carpenter ant control. Maximum control is generally achieved using the following procedure:

The following procedure must be followed to help achieve maximum control of the pest:

- 1) Treat non-porous surfaces only in areas protected from rainfall and spray from sprinklers with low volume applications using 0.5 to 1.0 fluid oz. of Talstar® P Professional Insecticide per gallon of water and applying this dilution at the rate of one gallon per 1,000 square feet
- 2) Treat the trunks of trees that have carpenter ant trails, or upon which carpenter ants are foraging, using 0.5 to 1.0 fluid oz. of Talstar® P Professional Insecticide per gallon of water and apply-

ing this dilution to thoroughly wet the bark from the base of the tree to as high as possible on the trunk

- 3) Treat porous surfaces and vegetation with high volume applications (usually 5 to 10 finished gallons per 1,000 square feet) using dilutions that are calculated to deliver 0.5 to 1.0 fluid oz. of Talstar® P Professional Insecticide per 1,000 square feet (refer to the Talstar® P Professional Insecticide Dilution Chart)
- 4) For maximum residual control, dilute 1.0 fluid oz. of Talstar® P Professional Insecticide per gallon of water and apply at a rate of up to 10 gallons of dilution per 1000 square feet.

To control carpenter ants inside trees, utility poles, fencing or deck materials and similar structural members, drill to locate the interior infested cavity and inject or foam a 0.06% dilution (1.0 fluid oz. of Talstar® P Professional Insecticide per gallon of water) into the cavity using a sufficient volume and an appropriate treatment tool with a splashback guard.

To control carpenter ants that are tunneling in the soil, dilute 0.5 to 1.0 fluid ounces of Talstar® P Professional Insecticide per gallon of water and apply as a drench or inject the dilution or foam at intervals of 8 to 12 inches. Establish a uniform vertical barrier at the edges of walls, driveways or other hard surfaces where ants are tunneling beneath the surfaces.

To protect firewood from carpenter ants (and termites), dilute 1.0 fluid oz. of Talstar® P Professional Insecticide per gallon of water and apply to the soil beneath where the firewood will be stacked at the rate of one gallon of dilution per 8 square feet

For wood piles and stored lumber apply a 0.06% dilution. Use a hose-end sprayer or sprinkling can to deliver a coarse drenching spray. Treated wood can be burned as firewood or used for lumber one month after treatment. Do not use in structures.

For Ant and Fire Ant Mounds control is optimized by combining broadcast applications that will control foraging workers and newly mated fly-in queens with mound drenches that will control existing colonies. If the soil is not moist, then it is important to irrigate before application or use a high volume application. Apply broadcast treatments at 0.6 to 1 fluid oz. per 1,000 square feet. Use enough finished volume to penetrate thatch or sod. Treat mounds by applying 1 fl oz Talstar P Professional per mound in 1 to 2 gallons water by sprinkling the mound until it is wet and treat 3 feet out around the mound. Use the higher volume for mounds larger than 12". Treat mounds with sufficient force to break their apex and allow the insecticide solution to flow into the ant tunnels. For best results, apply in cool weather (65 - 80°F) or in early morning or late evening hours.

Pest Control on Outside Surfaces and Around Buildings

Talstar® P Professional Insecticide will provide up to 1 month residual control of house flies. Length of residual control is dependant upon rate and surface treated.

Follow Additional Application Restrictions for Outdoor Surface and Space Sprays under DIRECTIONS FOR USE

Applications to vertical exterior surfaces (e.g., foundations) are permitted to a maximum height of 3 feet from ground level. Sections of vertical exterior surfaces that abut non-porous horizontal surfaces can only be treated if either 1) these sections are protected from rainfall and spray from sprinklers or 2) they do not drain into a sewer, storm drain, or curb-side gutter (e.g., not to sections that abut driveways or sidewalks that drain into streets).

For control of Ants, Carpenter Ants, Fire Ants, Armyworms, Lady Beetle, Bees, Beetles¹, Biting Flies, Boxelder Bugs, Centipedes, Chiggers, Chinch Bugs, Cicadas, Clover Mites, Cockroaches, Crickets, Cutworms, , Dichondra Flea Beetles, Earwigs, Elm Leaf Beetles, Firebrats, Fleas, Flies, Gnats, Grasshoppers, Hornets, Japanese Beetles¹, Midges, Millipedes, Mosquitoes, Moths, Scorpions, Silverfish, Sod Webworms, Sowbugs (Pillbugs), Spider Mites, Spiders (including Black Widow, Brown Recluse and Hobo Spiders), Springtails, Stink Bugs, Ticks (including Brown Dog Ticks), Vinegar (Fruit) Flies, and Wasps.

¹Not for use in California.

Apply Talstar® P Professional Insecticide using a 0.02 to 0.06% dilution as a residual spray to outside surfaces of buildings including, but not limited to, exterior siding, foundations, porches, window frames, eaves, patios, garages, refuse dumps, lawns such as grass areas adjacent or around private homes, duplexes, townhouses, condominiums, house trailers, apartment complexes, carports, garages, fence lines, storage sheds, barns, and other residential and non-commercial structures, soil, trunks of woody ornamentals and other areas where pests congregate or have been seen. Do not apply more than 1 oz. Talstar P Professional per 1000 square feet. (Refer to the Talstar P Professional Dilution Chart.). Higher application volumes may be used to obtain the desired coverage of dense vegetation or landscaping materials.

Mixing Directions: For 0.02% dilution, mix 0.33 fluid oz. of Talstar® P Professional Insecticide per gallon of water. For 0.06% dilution, mix 1 fluid oz. Talstar® P Professional Insecticide per gallon of water (1 fluid oz. = 2 tablespoons). Do not use household utensils to measure Talstar® P Professional Insecticide. Use the higher rate for heavy pest infestation, quicker knockdown or longer residual control. Retreatment may be nec-

essary to achieve and/or maintain control during periods of high pest pressure. Repeat application is necessary only if there are signs of renewed insect activity. Repeat application should be limited to no more than once per seven days.

Perimeter Treatment: Apply to a band of soil and vegetation 6 to 10 feet wide around and adjacent to the structure. Also, treat the foundation of the structure to a height of 2 to 3 feet. Apply 0.33 to 1.0 fluid oz. of Talstar® P Professional Insecticide per 1,000 square feet in sufficient water to provide adequate coverage (refer to Talstar® P Professional Insecticide Dilution Chart). For sections of foundation that abut non-porous horizontal surfaces, the treated areas must be protected from rainfall and spray from sprinklers or they do not drain into a sewer, storm drain, or curbside gutter (e.g. not to sections that abut driveways or sidewalks that drain into streets).

Broadcast Treatment of Wood for the Control of Wood-infesting Insects and Nuisance Pests Outside of Structure

Apply a 0.06% dilution with a fan spray using a maximum pressure of 25 psi. Treatment should be made to thoroughly and uniformly cover the surface but limit excess runoff.

To control wood-infesting insects active inside trees, utility poles and/or fence posts, drill to find the interior infested cavity and inject a 0.06% dilution. To control Bees, Wasps, Hornets, and Yellow-Jackets, apply in late evening when insects are at rest. Aim spray at nest openings in ground, bushes and in cracks and crevices which may harbor nests, saturating nest openings and contacting as many insects as possible.

Pests Under Slabs

Infestations of Arthropods, such as Ants, Cockroaches and Scorpions inhabiting under slab area may be controlled by drilling and injecting or horizontal rodding and then injecting 1 gallon of a 0.06% or 1/2 gallon of a 0.12% dilution per 10 square feet (or 2 gallons of a 0.06% dilution or 1 gallon of a 0.12% dilution per 10 linear feet).

MOSQUITO CONTROL

Control adult mosquitoes outdoors on residential, institutional, public, commercial and industrial buildings, and lawns, ornamentals, parks, recreational areas and athletic fields.

Apply Talstar® P Professional Insecticide for mosquito control at an application rate of 0.33 to 1.0 fluid oz. Talstar® P Professional Insecticide per gallon of water (0.07 to 0.22 lbs bifenthrin/acre), and apply at the rate of one gallon of dilution per 1,000 square feet as a general spray (refer to the Talstar® P Professional Insecticide Dilution Chart). Use the high rate for residual control of mosquitoes. Use this product for control of mosquitoes that may potentially transmit malaria and arboviruses (West Nile fever, dengue fever, Eastern equine encephalitis, and St. Louis encephalitis).

Apply as a residual spray to outside surfaces of buildings including but not limited to, exterior siding, foundations, porches, window frames, eaves, patios, garages, refuse dumps, lawns such as grass areas adjacent to or around private homes, duplexes, townhouses, condominiums, house trailers, apartment complexes, carports, fence lines, storage sheds, barns, and other commercial, residential and non commercial structures, soil, trunk of woody ornamentals, trees, shrubs, ground cover, bedding plants, foliage plants, flowers, non-bearing fruit and nut trees, urban areas, parks, campsites, athletic fields, playgrounds, recreational and overgrown waste areas, roadsides and other areas where mosquitoes are found. May also be applied to non-bearing crops or perennial crops that will not produce harvestable raw agricultural commodities during the season of application.

Use the high rate for heavy pest infestation, quicker knockdown, or longer residual control. Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure, or if there are signs of renewed insect activity. For the lower use rates, repeat application should be limited to no more than once per seven days. For the high use rate of 1.0 fluid oz. Talstar® P Professional Insecticide per gallon of water, do not apply more than once per four weeks.

Apply with hand-held and back pack sprayers or mist blowers, ground sprayers, power sprayers, truck mounted hydraulic sprayers or mist blowers. Do not apply by air or with hand held or truck mounted cold aerosol ULV sprayers and thermal fogging devices. For best results apply when mosquitoes are most active. Application during the cooler hours of the night or early mornings is recommended.

Do not apply more than 1.0 fluid oz. of Talstar® P Professional Insecticide per 1,000 square feet (equivalent to 0.22 lbs. bifenthrin/acre) per application

Do not apply when wind speed exceeds 10 MPH.

INDOOR USE

For control of Ants, Carpenter Ants, Bedbugs, Bees, Beetles, Biting Flies, Boxelder Bugs, Centipedes, Cicadas, Cockroaches, Crickets, Earwigs, Firebrats, Fleas, Flies, Gnats, Millipedes, Mosquitoes, Moths, Scorpions, Silverfish, Sowbugs (Pillbugs), Spider Mites, Spiders (including Black Widow, Brown Recluse and Hobo Spiders), Springtails, Stink Bugs, Ticks (including Brown Dog Ticks), Vinegar (Fruit) Flies, and Wasps.

In the home, all food processing surfaces and utensils should be covered during treatment or thoroughly washed before use. Exposed food should be covered or removed.

Use a 0.02% to 0.06% dilution (0.33 to 1 fluid oz. per gallon of water) for residual pest control in buildings and structures and on modes of transport. Apply either as a crack and crevice, pinstream, spot, coarse, low pressure spray (25 psi or less) or with a paint brush.

Apply as a coarse, low pressure, crack and crevice or spot spray to areas where pests hide, such as baseboards, corners, storage areas, closets, around water pipes, doors and windows, attics and eaves, behind and under refrigerators, cabinets, sinks, furnaces, stoves, the underside of shelves, drawers and similar areas. Do not use as a space spray. Pay particular attention to cracks and crevices.

Mixing Directions: See mixing directions in "Pest Control on Outside Surfaces and Around Buildings" section.

Talstar® P Professional Insecticide is to be diluted with water for spray or brush application. Fill sprayer with the desired volume of water and add Talstar® P Professional Insecticide. Close and shake before use in order to ensure proper mixing. Mix only the amount of solution needed for the application. Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure. Repeat application is necessary only if there are signs of renewed insect activity. Limit repeat application to no more than once per seven days.

Talstar® P Professional Insecticide may be converted to a foam and used to treat void spaces, or as a spot spray on vertical or horizontal surfaces where visual marking of application is desired. Use of a foaming agent increases a.i. surface contact time on challenging surfaces and provides visual marking of the application.

Bedbugs: Thorough application should be made to crack and crevices where evidence of bed bugs occurs. This includes bed frames, box springs, inside empty dressers and clothes closets and carpet edges, high and low wall moldings and wallpaper edges. Do not use this product on bed linens, pillows, mattresses or clothes. Remove all clothes and other articles from dressers or clothes closets before application. Allow all treated areas to thoroughly dry before use. Not recommended for use as sole protection against bedbugs. If evidence of bedbugs is found in/on mattresses, use products approved for this use.

Use a 0.06% dilution (1 fluid oz. per gallon of water) for residual pest control in buildings and structures and on modes of transport. Apply either as a crack and crevice, pinstream, spot, coarse, low pressure spray (25 psi or less) or with a paint brush.

Cockroaches, Crickets, Firebrats, Flies, Gnats, Moths, Mosquitoes, Scorpions, Silverfish, Spiders, Ticks

Talstar® P Professional Insecticide will provide up to 1 month residual control of house flies. Length of residual control is dependant upon rate and surface treated.

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, behind and under refrigerators, cabinets, sinks, furnaces, and stoves, the underside of shelves, drawers and similar areas. Pay particular attention to cracks and crevices.

Ants: Apply to any trails, around doors and windows and other places where ants may be found.

Fleas:

Talstar® P Professional Insecticide will kill fleas for up to 3 months

Apply as a coarse, low pressure spot or crack and crevice treatment to areas frequented by pets, such as under bedding, rugs, next to furniture. Do not apply Talstar® P Professional Insecticide dilution directly to pets. Treatment must be dry before pet re-entry. Vacuum prior to treatment.

Boxelder Bugs, Centipedes, Cicadas, Earwigs, Beetles, Millipedes, Pillbugs, Sowbugs, Springtails, and Stink Bugs: Apply around doors and windows and other places where these pests may be found or where they may enter premises. Check damp areas and drains for pest access. Spray baseboards, storage areas and other locations.

Spider Mites: Treat houseplants thoroughly but do not allow run off to occur. Make sure to treat underside of leaves.

Bees and Wasps

To control Bees, Wasp, Hornets, and Yellow-Jackets apply a 0.06% dilution. Application should be made in the late evening when insects are at rest. Thoroughly spray nest and entrance and surrounding areas where insects alight. Spray liberally into hiding and breeding places, especially under attic rafters, contacting as many insects as possible. Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure. Repeat application is necessary only if there are signs of renewed insect activity.

Precautions: Do not apply dilution until location of heat pipes, ducts, water and sewer lines and electrical conduits are known and identified. Caution must be taken to avoid puncturing and injection into these structural elements. During any overhead applications to overhead interior areas of structures, cover surfaces below with plastic sheeting or similar materials.

Restrictions:

Do not apply into electrical fixtures, switches, or sockets.

In the home, all food processing surfaces and utensils in the treatment area should be covered during treatment or thoroughly washed before re-use. Remove pets, birds, and cover aquariums before spraying. Do not permit humans or pets to contact treated surfaces until the spray has dried.

Wear protective clothing, unvented goggles, gloves and respirator, when applying to overhead areas or in poorly ventilated areas. Avoid touching sprayed surfaces until spray has completely dried.

FOR CONTROL OF STORED PRODUCTS PESTS

Including Indian Meal Moths, Rice Moths, Tobacco Moths, Flour Beetles, Lesser Grain Borers, Merchant Grain Beetles, Sawtoothed Grain Beetles, Grain Weevils, Warehouse Beetles, Cigarette Beetles, and Dermestid Beetles, Psocids, and other similar pests. Inspect to locate and remove infested food sources, remove or cover any food items or food serving dishes or utensils prior to treatment. Apply Talstar P Professional using a 0.02 to 0.06% dilution, 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, behind and under refrigerators, cabinets, sinks, furnaces, and stoves, the underside of shelves, drawers and similar areas. Pay particular attention to cracks and crevices. Do not apply directly to food.

WAREHOUSES and GROCERY/PET STORES: Talstar® P Professional Insecticide dilution may be applied as a surface, spot or crack and crevice treatment in food and storage warehouses and stores. Apply to all areas that may harbor pests, including under and between pallets, bins, and shelves. Do not apply directly to food, grain bins (interior), or animals.

FOOD/FEED HANDLING ESTABLISHMENT APPLICATIONS

Applications of this product are permitted in both food/feed and non-food areas of food/feed handling establishments as a surface, spot, or crack and crevice treatment.

Talstar P Professional Insecticide will provide up to 1 month residual control of house flies. Length of residual control is dependant upon rate and surface treated.

Food/feed handling establishments are defined as places other than private residences in which exposed food/feed is held, processed, prepared or served. Included also are areas for receiving, storing, packing (canning, bottling, wrapping, boxing), preparing, edible waste storage and enclosed processing systems (mills, dairies, edible oils, syrups) of food. Serving areas where food is exposed and the facility is in operation are also considered food areas.

Permitted non-food areas of use include, garbage rooms, lavatories, entries and vestibules, offices, locker rooms, machine rooms, garages, mop closets and storage (after canning or bottling).

Permitted use sites include, but are not limited to: Aircraft (Do not use in aircraft cabins), bakeries, bottling facilities, breweries, buses, cafeterias, candy plants, canneries, dairy product processing plants, food manufacturing plants, food processing plants, food service establishments, granaries, grain mills, hospitals, hotels, industrial buildings, laboratories, meat/poultry/egg processing plants, mobile/motor homes, nursing homes offices, railcars, restaurants, schools, ships, trailers, trucks, vessels, warehouses and wineries.

Surface Application: Do not use this application method in food/feed handling establishments when the facility is in operation or foods/feeds are exposed. Do not apply directly to food products. Cover or remove all food processing and/or handling equipment during application. After application in food processing plants, bakeries, cafeterias and similar facilities, wash all equipment, benches, shelving and other surfaces which food will contact. Clean food handling or processing equipment and thoroughly rinse with clean, fresh water.

Spot, Crack and Crevice Application: Spot or crack and crevice applications may be made while the facility is in operation; however, food should be covered or removed from area being treated. Do not apply directly to food. For this application a "spot" will not exceed 2 ft²

ANIMAL CONFINEMENT FACILITIES, LIVESTOCK PREMISES, CONFINED ANIMAL FEEDING OPERATIONS, and KENNELS

Controls biting flies, filth-breeding flies, fleas, litter beetles, hide beetles, bed bugs, mites, and ticks. Apply as a surface (including directed spray) and/or crack and crevice treatment. Control is enhanced when interior and exterior perimeter applications are made in and around the livestock, poultry, or pet housing structures. Normal cleaning practices of the structure also must be followed along with applications of Talstar P Professional Insecticide to effectively control crawling and flying insect pests.

For occupied areas of poultry/livestock facilities and kennels, apply to indoor cracks and crevices only. Exterior applications to walls and foundation perimeters can help prevent interior infestations of flying and crawling insect pests. Apply Talstar P Professional Insecticide at a rate equivalent to 0.33 to 1 fl. oz per 1000 sq. feet.

For unoccupied areas of poultry/livestock facilities and kennels, apply to floors, vertical and overhead surfaces where crawling or flying insect pests may be present. Feeders, waterers, and feed carts should be covered before application to prevent contamination. Do not apply to milk rooms. Pay attention to animal areas including stanchions, pipes, windows, doors, and areas where insect pests hide or congregate. Exterior applications to walls and foundation perimeters can help prevent interior infestations of flying and crawling insect pests. Apply Talstar P Professional Insecticide at a rate equivalent to 0.33 to 1 fl. oz per 1000 sq. feet. Use sufficient finished volume to penetrate leaf litter, thatch, mulch, or porous surfaces.

To control bed bugs, mites and ticks in animal facilities, treat cracks/crevices, walls, posts, nest boxes, and mobile side curtains. Do not apply Talstar P Professional Insecticide directly to animals. To control bedbugs, use 0.5 to 1 fl. oz per 1000 sq. ft. Use the higher rate of application on painted and non-porous surfaces.

For adult fly control in and around animal facilities, spray application should target areas where flies will rest, such as the ceiling, rafters, and trusses. Also treat windows, interior and exterior walls and supports, fences, and vegetation. Talstar P Professional Insecticide dilution may be sprayed on manure in areas where fly larvae are abundant and the area cannot be cleaned.

For poultry houses, apply to floor area (birds grown on litter) or to walls, posts, and cage framing (birds grown in cages). Application should also be made into cracks and crevices around insulation. Reapply after each growout or sanitization procedure, but not more frequently than every 8 weeks. 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 2 to 3 feet up and 6 to 10 feet out from the structure. Maintaining a year-round treatment program will prevent background populations from reaching problem levels.

To control beetles in houses containing birds grown on litter, apply Talstar P Professional Insecticide at a rate equivalent to 0.33 to 1 fl. oz per 1000 sq. feet to litter after birds are removed and during tilling. If litter is removed and replaced with fresh litter, apply Talstar P Professional Insecticide at a rate equivalent to 0.33 to 1 fl. oz per 1000 sq. feet to bare soil or concrete, and treat new litter after it is spread. Apply spray to inside walls, posts, and exterior perimeter. Reapply between each flock.

To control beetles in broiler-breeder houses, apply as directed above for litter and soil/floor treatment.

To control beetles in caged-layer houses, do not treat accumulated manure, as it will likely disrupt natural enemies that control fly breeding. Instead, treat the perimeter of the manure at a rate equivalent to 0.33 to 1 fl. oz Talstar P Professional Insecticide per 1000 sq. feet. Pit walls, posts, and exterior of structure should also be sprayed. Reapply between each flock.

Allow Talstar P Professional Insecticide treatment to dry before applying disinfectants.

DO NOT apply Talstar P Professional Insecticide as a surface spray when animals are present in the facility. Allow applications to dry before restocking the facility. Treatment may be made to cracks and crevices when animals are present.

DO NOT apply Talstar P Professional Insecticide to any animal feed, water, or watering equipment.

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

Foam Applications

Talstar® P Professional Insecticide may be converted to a foam and used to treat void spaces, or as a spot spray on vertical or horizontal surfaces where visual marking of application is desired. Use of a foaming agent increases a.i. surface contact time on challenging surfaces and provides visual marking of the application. Ensure that the foaming agent is approved for food surface/area contact use.

Specific Pest Control Applications

Underground Services such as: wires, cables, utility lines, pipes, conduits, etc. Services may be within structures or located outside structures, in right-of-ways or to protect long range (miles) of installations of services.

Soil treatment may be made using 0.06 to 0.12% Talstar® P Professional Insecticide dilution to prevent attack by Termites and Ants.

Apply 2 gallons of dilution per 10 linear feet to the bottom of the trench and allow to soak into the soil. Lay services on the treated soil and cover with approximately 2 inches of fill soil. Apply another 2 gallons per 10 linear feet over the soil surface to complete the treatment barrier. In wide trenches, only treat the soil in the area near the services. It is important to establish a continuous barrier of treated soil surrounding the services.

Where soil will not accept the above labeled volume, 1 gallon of 0.12% Talstar® P Professional Insecticide may be used per 10 linear feet of trench both to the bottom of the trench and over the soil on top of the services.

Finish filling the trench with treated fill soil. The soil where each service protrudes from the ground may be treated by trenching/rodding of no more than 1 to 2 gallons of dilution into the soil.

Restrictions:

Do not treat electrically active underground services.

Posts, Poles, and Other Constructions

Create an insecticidal barrier in the soil around wooden constructions such as signs, fences and landscape ornamentation by applying a 0.06% dilution.

Previously installed poles and posts may be treated by sub-surface injection or treated by gravity-flow through holes made from the bottom of a trench around the pole or post. Treat on all sides to create a continuous insecticidal barrier around the pole. Use 1 gallon of dilution per foot of depth for poles and posts less than six inches in diameter. For larger poles, use 1.5 gallons of dilution per foot of depth. Apply to a depth of 6 inches below the bottom of the wood. For larger constructions, use 4 gallons per 10 linear feet per foot of depth.

Treatment of Wood-in-Place for Control of Wood-Infesting Insects: (Localized Areas in Structure) For the control of insects such as Termites, Ants, Carpenter Ants, and wood-infesting beetles such as Old House Borer and Powder Post in localized areas of infested wood in and around structures, apply a 0.06% dilution to voids and galleries in damaged wood and in spaces between wooden members of a structure and between wood and foundations where wood is vulnerable. Paint on or fan spray applications may also be used. Plastic sheeting must be placed immediately below overhead areas that are spot treated except for soil surfaces in crawl spaces. Application may be made to inaccessible areas by drilling, and then injecting dilution with a crack and crevice injector into the damaged wood or void spaces. This type of application is not intended to be a substitute for soil treatment, mechanical alteration or fumigation to control extensive infestation of wood-infesting insects.

Termite carton nests in trees or building voids may be injected with 0.06% dilution. Multiple injection points to varying depths may be necessary. It is desirable to physically remove carton nest material from building voids when such nests are found.

Pest Control in Crawlspace and Voids: Broadcast Talstar® P Professional Insecticide at 0.02% to 0.06% to all surfaces in crawl-space and/or void to control ants, fleas, roaches, scorpions, or other arthropods. This treatment is not intended as a substitute for termite control. Treatment should be made to thoroughly and uniformly cover the surface but limit excess runoff. Keep children and pets off surface until dry.

SUBTERRANEAN TERMITE CONTROL

Directions For Use

All pesticide handlers (mixers, loaders and applicators) must wear long-sleeved shirt and long pants, socks, shoes and chemical-resistant gloves. After the product is diluted in accordance with label directions for use, and/or when mixing and loading using a closed spray tank transfer system (such as an in-line injector system), shirt, pants, socks, shoes and waterproof gloves are sufficient. In addition, all pesticide handlers must wear a respiratory protection device¹ when working in a non-ventilated space. All pesticide handlers must wear protective eyewear when working in non-ventilated space or when applying termiticide by rodding or sub-slab injection.

¹Use one of the following NIOSH approved respirator with any R, P or HE filter or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P or HE prefilter.

When treating adjacent to an existing structure, the applicator must check the area to be treated, and immediately adjacent areas of the structure, for visible and accessible cracks and holes to prevent any leaks or significant exposures to persons occupying the structure. People present or residing in the structure during application must be advised to remove their pets and themselves from the structure if they see any signs of leakage. After application, the applicator is required to check for leaks. All leaks resulting in the deposition of termiticide in locations other than those prescribed on this label must be cleaned up prior to leaving the application site. Do not allow people or pets to contact contaminated areas or to reoccupy contaminated areas of the structure until the clean-up is completed.

The use of this product prevents and controls termite infestations in and around structures and constructions.

The insecticidal dilution must be adequately dispersed in the soil to establish a barrier between the wood and the termites in the soil. As a good practice: 1) all non-essential wood and cellulose containing materials, should be removed from around foundation walls, crawl spaces, and porches; 2) eliminate termite access to moisture by repairing faulty plumbing and/or construction grade. Soil around untreated structural wood in contact with soil should be treated as described below.

To establish an effective insecticidal barrier with this product the service technician must be familiar with current termite control practices such as: trenching, rodding, sub-slab injection, coarse fan spraying of soil surfaces, crack and crevice (void) injection, excavated soil treatment, and brush or spray applications to infested or susceptible wood. These techniques must be correctly employed to prevent or control infestations by subterranean termites such as: *Coptotermes*, *Heterotermes*, *Reticulitermes* and *Zootermopsis*. The biology and behavior of the species involved should be considered by the service technician in determining which control practices to use to control or prevent the termite infestation.

Choice of appropriate procedures should include consideration of such variable factors as the design of the structure, location of heating, ventilation, and air conditioning (HVAC) systems, water table, soil type, soil compaction, grade conditions, and location and type of domestic water supplies and utilities.

For advice concerning current control practices with relation to specific local conditions, consult resources in structural pest control and state cooperative extension and regulatory agencies.

Important: Contamination of public and private water supplies must be avoided by following these restrictions and procedures: Use anti-backflow equipment or procedures to prevent siphonage of insecticide into water supplies. Do not contaminate cisterns or wells. Do not treat soil that is water saturated or frozen or in any conditions where runoff or movement from the treatment area (site) is likely to occur. Consult state and local specifications for recommended distances of wells from treated areas, or if such regulations do not exist, refer to Federal Housing Administration Specifications (H.U.D.) for guidance.

Note: Crawl spaces are considered inside of the structure.

Critical Areas: Critical areas include areas where the foundation is penetrated by utility services, cracks and expansion joints, bath traps and areas where cement constructions have been poured adjacent to the foundation such as stairs, patios and slab additions.

Structures with Wells/Cisterns Inside Foundations

Structures that contain wells or cisterns within the foundation of a structure can only be treated using the following techniques:

1. Do not treat soil while it is beneath or within the foundation or along the exterior perimeter of a structure that contains a well or cistern. The treated backfill method must be used if soil is removed and treated outside/away from the foundation. The treated backfill technique is described as follows:
 - a. Trench and remove soil to be treated onto heavy plastic sheeting or similar material or into a wheelbarrow.
 - b. Treat the soil at the rate of 4 gallons of dilution per 10 linear feet per foot of depth of the trench, or 1 gallon per 1.0 cubic feet of soil. See "Mixing Directions" section of the label. Mix thoroughly into the soil taking care to contain the liquid and prevent runoff or spillage.
 - c. After the treated soil has absorbed the dilution, replace the soil into the trench.
2. Treat infested and/or damaged wood in place using an injection technique such as described in the "Control of Wood Infesting Insects" section of this label.

Structures with Adjacent Wells/Cisterns and/or Other Water Bodies

Applicators must inspect all structures with nearby water sources such as wells, cisterns, surface ponds, streams, and other bodies of water and evaluate, at a minimum, the treatment recommendations listed below prior to making an application

1. Prior to treatment, if feasible, expose the water pipe(s) coming from the well to the structure, if the pipe(s) enter the structure within 3 feet of grade.
2. Prior to treatment, applicators are advised to take precautions to limit the risk of applying the termiticide into subsurface drains that could empty into any bodies of water. These precautions include evaluating whether application of the termiticide to the top of the footer may result in contamination of the subsurface drain. Factors such as depth to the drain system and soil type and degree of compaction should be taken into account in determining the depth of treatment.
3. When appropriate (i.e., on the water side of the structure), the treated backfill technique (described above) can also be used to minimize off-site movement of termiticide.

Prior to using this technique near wells or cisterns, consult state, local or federal agencies for information regarding approved treatment practices in your area.

Application Rate:

Use a 0.06% dilution for subterranean termites. For other pests on the label use specific listed rates.

Mixing Directions: Mix the termiticide use dilution in the following manner: Fill tank 1/4 to 1/3 full. Start pump to begin by-pass agitation and place end of treating tool in tank to allow circulation through hose. Add appropriate amount of Talstar® P Professional Insecticide. Add remaining amount of water. Let pump run and allow recirculation through the hose for 2 to 3 minutes.

Talstar® P Professional Insecticide may also be mixed into full tanks of water, but requires substantial agitation to ensure uniformity of the dilution.

To prepare a 0.06% water dilution, ready to use, dilute 3 quarts of Talstar® P Professional Insecticide with 99.25 gallons of water.

Mixing:

For the desired application rate, use the chart below to determine the amount of Talstar® P Professional Insecticide for a given volume of finished dilution:

Amount of Talstar® P Professional Insecticide (Gallons except where noted)			
Dilution Concentration	Amount of Talstar P Professional	Amount of Water	Desired Gallons of Finished Dilution
0.06%	1 fl oz	127 fl oz.	1
	5 fl oz	4.9	5
	10 fl oz.	9.9	10
	25 fl oz.	24.8	25
	1.5 qt.	49.6	50
	2.25 qt.	74.4	75
	3 qt.	99.25	100
0.12%*	2 fl oz	126 fl oz.	1
	10 fl oz	4.9	5
	19.5 fl oz.	9.8	10
	1.5 qt.	24.6	25
	3 qt.	49.2	50
	4.5 qt.	73.8	75
	6 qt.	98.5	100

Common units of measure:

1 pint = 16 fluid ounces (fl oz.)

1 quart = 2 pints = 4 cups = 32 fluid ounces (fl oz.)

*For termite applications, only use this rate in conjunction with the application volume adjustments as listed in the section below or in the foam or underground service application sections.

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

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

Where desirable for pre and post construction treatments, the volume of the 0.12% dilution may be reduced by 1/2 the labeled volume. See Volume Adjustment Chart below.

Note: When volume is reduced, the hole spacing for subslab injection and soil rodding may require similar adjustment to account for lower volume dispersal of the termiticide in the soil.

Volume Adjustment Chart		
Rate (% dilution)	0.06%	0.12%
Volume allowed		
Horizontal (gallons dilution/10 ft ²)	1.0 gallons	0.5 gallons
Vertical (gallons dilution/10 lin. ft.)	4.0 gallons	2.0 gallons

After Treatment: All holes in commonly occupied areas into which Talstar® P Professional Insecticide has been applied must be plugged. Plugs must be of a non-cellulose material or covered by an impervious, non-cellulose material.

Pre-Construction Subterranean Termite Treatment

The treatment site must be covered prior to a rain event in order to prevent run-off of the pesticide into non-target areas.

The applicator must either cover the soil him/herself or provide written notification of the above requirement to the contractor on site and to the person commissioning the application (if different than the contractor). If notice is provided to the contractor or the person commissioning the application, then they are responsible under FIFRA to ensure that: 1) if the concrete slab cannot be poured over the treated soil within 24 hours of application the treated soil is covered with a waterproof covering (such as polyethylene sheeting), and 2) the treated soil is covered if precipitation is predicted to occur before the concrete slab is scheduled to be poured.

Do not treat soil that is water-saturated or frozen.

Do not treat when raining.

Do not allow treatment to runoff from the target area.

Do not apply within 10 feet of storm drains. Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes or ponds; estuaries; and commercial fish farm ponds).

Do not make on-grade applications when sustained wind speeds are above 10 mph (at application site) at nozzle end height.

Pre-Construction Treatment: Do not apply at a lower dosage and/or concentration than specified on this label for applications prior to the installation of the finished grade.

When treating foundations deeper than 4 feet, apply the termiticide as the backfill is being replaced, or if the construction contractor fails to notify the applicator to permit this, treat the foundation to a minimum depth of 4 feet after the backfill has been installed. The applicator must trench and rod into the trench or trench along the foundation walls and

around pillars and other foundation elements, at the rate prescribed from grade to a minimum depth of 4 feet. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. However, in no case should a structure be treated below the footing.

Effective pre-construction subterranean termite control is achieved by the establishment of vertical and/or horizontal insecticidal barriers using 0.06% dilution of Talstar® P Professional Insecticide.

Horizontal Barriers

Create a horizontal barrier wherever treated soil will be covered by a slab, such as footing trenches, slab floors, carports, and the soil beneath stairs and crawl spaces.

For a 0.06% rate apply 1 gallon of dilution per 10 square feet, or use 1 fluid ounce of Talstar® P Professional Insecticide per 10 square feet in sufficient water (no less than 1/2 gallon or more than 2 gallons) to provide thorough and continuous coverage of the area being treated.

If the fill is washed gravel or other coarse material, it is important that a sufficient amount of dilution be used to reach the soil substrate beneath the coarse fill.

Applications shall be made by a low pressure spray (less than 50 p.s.i.) using a coarse spray nozzle. If slab will not be poured the same day as treatment, cover treated soil with a water-proof barrier such as polyethylene sheeting. This is not necessary if foundation walls have been installed around the treated soil.

Vertical Barriers

Vertical barriers must be established in areas such as around the base of foundations, plumbing, utility entrances, back-filled soil against foundation walls and other critical areas.

For a 0.06% rate, apply 4 gallons of dilution per 10 linear feet per foot of depth or 4 fluid ounces of Talstar® P Professional Insecticide 10 linear feet per foot of depth from grade to top of footing in sufficient water (not less than 2 gallons or more than 8 gallons) to ensure complete coverage.

- When trenching and rodding into the trench, or trenching, it is important that dilution reaches the top of the footing. Rod holes must be spaced so as to achieve a continuous termiticide barrier, but in no case more than 12 inches apart.
- Care should be taken to avoid soil wash-out around the footing.
- Trenches need not be wider than 6 inches. Dilution should be mixed with the soil as it is being replaced in the trench.
- For a monolithic slab, an inside vertical barrier may not be required.

Treat hollow block voids at a rate of 2 gallons of dilution per 10 linear feet so that the dilution will reach the top of the footing.

Prior to each application, applicators must notify the general contractor, construction superintendent, or similar responsible party, of the intended termiticide application and intended sites of application and instruct the responsible person to notify construction workers and other individuals to leave the area to be treated during application and until the termiticide is absorbed into the soil.

Post Construction Subterranean Termite Treatment

Use a 0.06% dilution for post-construction treatment. Post-construction soil applications shall be made by injection, trenching and rodding into the trench or trenching, or coarse fan spray with pressures not exceeding 25 p.s.i. at the nozzle. Care should be taken to avoid soil wash-out around the footing.

Do not apply dilution until location of wells, radiant heat pipes, water and sewer lines and electrical conduits are known and identified. Caution must be taken to avoid puncturing and injection into these elements.

Foundations: For applications made after the final grade is installed, the applicator must trench and rod into the trench or trench along the foundation walls and around pillars and other foundation elements, at the rate prescribed from grade to the top of the footing. When the footing is more than four (4) feet below grade, the applicator must trench and rod into the trench or trench along the foundation walls at the rate prescribed to a minimum depth of four feet. The actual depth of treatment will vary depending on soil type, degree of compaction, and location of termite activity. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. However, in no case should a structure be treated below the footing.

Slabs

Vertical barriers may be established by sub-slab injection within the structure and trenching and rodding into the trench or trenching outside at the rate of 4 gallons of dilution per 10 linear feet per foot of depth. Special care must be taken to distribute the treatment evenly. Treatment should not extend below the bottom of the footing.

Treat along the outside of the foundation and where necessary beneath the slab on the inside of foundation walls. Treatment may also be required beneath the slab along both sides of interior footing-supported walls, one side of interior partitions and along all cracks and expansion joints. Horizontal barriers may be established where necessary by long-rodding or by grid pattern injection vertically through the slab.

- a. Drill holes in the slab and/or foundation to allow for the application of a continuous insecticidal barrier.
- b. For shallow foundations (1 foot or less) dig a narrow trench approximately 6 inches wide along the outside of the foundation walls. Do not dig below the bottom of the footing. The dilution should be applied to the trench and soil at 4 gallons of dilution per 10 linear feet per foot of depth as the soil is replaced in the trench.
- c. For foundations deeper than 1 foot follow rates for basement.
- d. Exposed soil and wood in bath traps may be treated with a 0.06% dilution.

Basements

Where the footing is greater than 1 foot of depth from grade to the bottom of the foundation, application must be made by trenching and rodding into the trench, or trenching at the rate of 4 gallons of dilution per 10 linear feet per foot of depth. When the footer is more than four feet below grade, the applicator may trench and rod into the trench, or trench along foundation walls at the rate prescribed for four feet of depth. Rod holes must be spaced to provide a continuous insecticidal barrier, but in no case more than 12 inches apart. The actual depth of treatment will vary depending on soil type, degree of compaction, and location of termite activity. However, in no case should a structure be treated below the footer. Sub-slab injection may be necessary along the inside of foundation walls, along cracks and partition walls, around pipes, conduits, piers, and along both sides of interior footing-supported walls.

Accessible Crawl Spaces: For crawl spaces, apply vertical termiticide barriers at the rate of 4 gallons of dilution per 10 linear feet per foot of depth from grade to the top of the footing, or if the footing is more than 4 feet below grade, to a minimum depth of 4 feet. Apply by trenching and rodding into the trench, or trenching. Treat both sides of foundation and around all piers and pipes. Where physical obstructions such as concrete walkways adjacent to foundation elements prevent trenching, treatment may be made by rodding alone. When soil type and/or conditions make trenching prohibitive, rodding may be used. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. Read and follow the mixing and use direction section of the label if situations are encountered where the soil will not accept the full application volume.

1. Rod holes and trenches must not extend below the bottom of the footing.
2. Rod holes must be spaced so as to achieve a continuous termiticide barrier but in no case more than 12 inches apart.
3. Trenches must be a minimum of 6 inches deep or to the bottom of the footing, whichever is less, and need not be wider than 6 inches. When trenching in sloping (tiered) soil, the trench must be stepped to ensure adequate distribution and to prevent termiticide from running off. The dilution must be mixed with the soil as it is replaced in the trench.
4. When treating plenums or crawl spaces, turn off the air circulation system of the structure until application has been completed and all termiticide has been absorbed by the soil.

Inaccessible Crawl Spaces: For inaccessible interior areas, such as areas where there is insufficient clearance between floor joists and ground surfaces to allow operator access, excavate if possible, and treat according to the instructions for accessible crawl spaces. Otherwise, apply one or a combination of the following two methods.

1. To establish a horizontal barrier, apply to the soil surface, 1 gallon of dilution per 10 square feet overall using a nozzle pressure of less than 25 p.s.i. and a coarse application nozzle (e.g., Delavan Type RD Raindrop, RD-7 or larger, or Spraying Systems Co. 8010LP TeeJet or comparable nozzle). For an area that cannot be reached with the application wand, use one or more extension rods to make the application to the soil. Do not broadcast or powerspray with higher pressures.
2. To establish a horizontal barrier, drill through the foundation wall or through the floor above and treat the soil perimeter at a rate of 1 gallon of dilution per 10 square feet. Drill spacing must be at intervals not to exceed 16 inches. Many States have smaller intervals, so check State regulations which may apply.

When treating plenums and crawl spaces, turn off the air circulation system of the structure until application has been completed and all termiticide has been absorbed by the soil.

Masonry Voids: Drill and treat voids in multiple masonry elements of the structure extending from the structure to the soil in order to create a continuous treatment barrier in the area to be treated. Apply at the rate of 2 gallons of dilution per 10 linear feet of footing, using a nozzle pressure of less than 25 p.s.i. When using this treatment, access holes must be drilled below the sill plate and should be as close as possible to the footing as is practical. Treatment of voids in block or rubble foundation walls must be closely examined: Applicators must inspect areas of possible runoff as a precaution against application leakage in the treated areas. Some areas may not be treatable or may require mechanical alteration prior to treatment.

All leaks resulting in the deposition of termiticide in locations other than those prescribed on this label must be cleaned up prior to leaving the application site. Do not allow people or pets to contact contaminated areas or to reoccupy the contaminated areas of the structure until the

clean-up is completed.

Note: When treating behind veneer care should be taken not to drill beyond the veneer. If concrete blocks are behind the veneer, both the blocks and the veneer may be drilled and treated at the same time.

Not for use in voids insulated with rigid foam insulation.

Excavation Technique: If treatment must be made in difficult situations, along fieldstone or rubble walls, along faulty foundation walls, and around pipes and utility lines which lead downward from the structure to a well or pond, application may be made in the following manner:

- a. Trench and remove soil to be treated onto heavy plastic sheeting or similar material.
- b. Treat the soil at the rate of 4 gallons of dilution per 10 linear feet per foot of depth of the trench. Mix the dilution thoroughly into the soil taking care to prevent liquid from running off the liner.
- c. After the treated soil has absorbed the liquid dilution, replace the soil in the trench.

Attention: When applying Talstar® P Professional Insecticide in a confined area, the user should wear unvented goggles and a respirator approved by NIOSH during application.

Foam Applications

Talstar® P Professional Insecticide dilution, from 0.06 to 0.12 % may be converted to a foam with expansion characteristics from 2 to 40 times.

Localized Application: The dilution may be converted to a foam and the foam used to control or prevent termite infestations.

Depending on the circumstances, foam applications may be used alone or in combination with liquid dilution applications. Applications may be made behind veneers, piers, chimney bases, into rubble foundations, into block voids or structural voids, under slabs, stoops, porches, or to the soil in crawlspaces, and other similar voids.

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

Foam applications are generally a good supplement to liquid treatments in difficult areas, but may be used alone in difficult spots.

Application Under Slabs or to Soil in Crawlspaces to Prevent or Control Termites

Application may be made using Talstar® P Professional Insecticide foam alone or in combination with liquid dilution. The equivalent of at least 4 gallons (4 ounces of Talstar® P Professional Insecticide concentrate) of 0.06% dilution per 10 linear feet (vertical barrier), or at least 1 gallon (1 ounce of Talstar® P Professional Insecticide concentrate) of 0.06% dilution per 10 square feet (horizontal barrier) must be applied either as dilution, foam, or a combination of both. For a foam only application, apply Talstar® P Professional Insecticide concentrate in sufficient foam concentration and foam volume to deposit 4 ounces of concentrate per 10 linear feet or 1 ounce of concentrate per 10 square feet. For example, 2 gallons of 0.12% dilution generated as foam to cover 10 linear feet is equal to the application of 4 gallons of 0.06% dilution per 10 linear feet.

Sand Barrier Installation and Treatment

Termites can build mud tubes over treated surfaces as long as they have access to untreated soil and do not have to move Talstar® P Professional Insecticide treated soil. Susceptible cracks and spaces can be filled with builder's or play box sand and the sand treated with Talstar P Professional. The sand should be treated as soil following the termiticide rate listed on the Talstar® P Professional Insecticide label.

Retreatment for subterranean termites can only be performed if there is clear evidence of reinfestation or disruption of the barrier due to construction, excavation, or landscaping and/or evidence of the breakdown of the termiticide barrier in the soil. These vulnerable or reinfested areas may be retreated in accordance with application techniques described in this product's labeling. The timing and type of these retreatments will vary depending on factors such as termite pressure, soil types, soil conditions and other factors which may reduce the effectiveness of the barrier.

Annual retreatment of the structure is prohibited unless there is clear evidence that reinfestation or barrier disruption has occurred.

APPLICATION IN CONJUNCTION WITH THE USE OF TERMITE BAITS

As part of the integrated pest management (IPM) program for termite control, Talstar® P Professional Insecticide may be applied to critical areas of the structure including plumbing and utility entry sites, bath traps, expansion joints, foundation cracks and areas with known or suspected infestations at a rate of 0.06% as a spot treatment or complete barrier treatment. Applications may be made as described in the Postconstruction treatment section of this label.

TERMITE CONTROL (ABOVE GROUND ONLY)

The purpose of the applications described below are to kill termite workers or winged reproductives that may be present at the time of treatment. These applications are intended as supplements to, and not substitutes for, mechanical alteration, soil treatment or foundation treatment.

To control exposed workers and winged reproductive termites in localized areas, dilute 1.0 fluid oz. of Talstar® P Professional Insecticide per gallon of water and apply as a course fan spray at the rate of one gallon per 1,000 square feet to attics, crawl spaces, unfinished basements and other void areas. Treat swarming termites as well as the areas in which they congregate.

To control above-ground termites in localized areas of infested wood, dilute 1.0 fluid oz. of Talstar® P Professional Insecticide per gallon of water and apply as a liquid or foam to voids and galleries in damaged wood as well as to spaces between wooden structural members and between the sill plate and foundation where wood is vulnerable to attack. Applications may be made to inaccessible areas by drilling and then injecting the dilution or foam, with a suitable directional injector, into damaged wood or wall voids. All treatment holes drilled in construction elements in commonly occupied areas of structures should be securely plugged after treatment.

To control termite carton nests in building voids, dilute 1.0 fluid oz. of Talstar® P Professional Insecticide per gallon of water and apply as a liquid or foam using a pointed injection tool. Multiple injection points and varying depths of injection may be necessary to achieve control. When possible, the carton nest material should be removed from the building void after treatment.

LAWN

Apply Talstar® P Professional Insecticide as a broadcast treatment. Use application volumes of up to 10 gallons per 1000 square feet to get uniform coverage when treating dense grass foliage.

For low volume applications, less than 2 gallons/1000 square feet, immediate irrigation of treated area with at least 0.25 inches of water following application to ensure efficacy of sub-surface pests such as, but not limited to, Mole Crickets, is recommended.

LAWN APPLICATION RATES

The application rates listed in the following table will provide excellent control of the respective pests under typical conditions. However, at the discretion of the applicator, Talstar® P Professional Insecticide may be applied at up to 1 fl. oz. per 1000 square feet to control each of the pests listed in this Table. The higher application rates should be used when maximum residual control is desired or heavy pest populations occur.

Pest	Application Rate Talstar® P Professional Insecticide
Armyworms ¹ Cutworms ¹ Sod Webworm ¹	0.18 - 0.25 fluid oz. per 1000 sq. ft.
Annual Bluegrass Weevil (Hyperodes) (Adult) ² Banks Grass Mite ⁶ Billbugs (Adult) ³ Black Turfgrass Ataenius (Adult) ⁴ Centipedes Crickets Earwigs Fleas (Adult) Grasshoppers Leafhoppers Mealybugs Millipedes Mites ⁶ Pillbugs Sowbugs	0.25 - 0.5 fluid oz. per 1000 sq. ft.
Crane Flies ¹²	0.5 fluid oz. per 1000 sq. ft.
Ants Chinch Bugs ⁵ Fleas (Larvae) ⁷ Imported Fire Ants ⁸ Japanese Beetle (Adult) Mole Cricket (Adult) ⁹ Mole Cricket (Nymph) ¹⁰ Stink Bugs Ticks ¹¹	0.5 - 1.0 fluid oz. per 1000 sq. ft.

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

In New York State, do make a single repeat application of Talstar® P Professional Insecticide if there are signs of renewed insect activity, but not sooner than two weeks after the first application.

Comments

¹**Armyworms, Cutworms and Sod Webworms:** To ensure optimum control, delay watering (irrigation) or mowing for 24 hours after application. If the grass area is being maintained at a mowing height of greater than 1 inch, then higher application rates (Up to 1 fluid oz. per 1000 square feet) may be required during periods of high pest pressure.

²**Annual Bluegrass Weevil (Hyperodes) adults:** Applications should be timed to control adult weevils as they leave their overwintering sites and move into grass areas. This movement generally begins when *Forsythia* is in full bloom and concludes when flowering dogwood (*Cornus florida*) is in full bloom. Consult your State Cooperative Extension Service for more specific information regarding application timing.

³**Billbug adults:** Applications should be made when adult billbugs are first observed during April and May. Degree day models have been developed to optimize application timing. Consult your State Cooperative Extension Service for information specific to your region. In temperate regions, spring applications targeting billbug adults will also provide control of over-wintered chinch bugs.

⁴**Black Turfgrass Ataenius adults:** Applications should be made during May and July to control the first and second generation of black turfgrass ataenius adults, respectively. The May application should be timed to coincide with the full bloom stage of Vanhoutte spiraea (*Spiraea vanhouttei*) and horse chestnut (*Aesculus hippocastanum*). The July application should be timed to coincide with the blooming of Rose of Sharon (*Hibiscus syriacus*).

⁵**Chinch Bugs:** Chinch Bugs infest the base of grass plants and are often found in the thatch layer. Irrigation of the grass area before treatment will optimize the penetration of the insecticide to the area where the chinch bugs are located. Use higher volume applications if the thatch layer is excessive or if a relatively long mowing height is being maintained. Chinch Bugs can be one of the most difficult pests to control in grasses and the higher application rates (Up to 1 fluid oz. per 1000 square feet) may be required to control populations that contain both nymphs and adults during the middle of the summer.

⁶**Mites:** To ensure optimal control of eriophyid mites, apply in combination with the labeled application rate of a surfactant. A second application, five to seven days after the first, may be necessary to achieve acceptable control.

⁷**Flea larvae:** Flea larvae develop in the soil of shaded areas that are accessible to pets or other animals. Use a higher volume application when treating these areas to ensure penetration of the insecticide into the soil. Note: if the lawn area is being treated with Talstar® P Professional Insecticide at 0.25 fluid oz. per 1000 square feet for adult flea control, then the larval application rate may be achieved by increasing the application volume two- to four-fold.

⁸**Imported Fire Ants:** Control will be optimized by combining broadcast applications that will control foraging workers and newly mated fly-in queens with mound drenches that will control existing colonies. If the soil is not moist, then it is important to irrigate before application or use a high volume application. Apply broadcast treatments at 0.6 to 1 fluid oz. per 1,000 square feet. Use enough finished volume to penetrate thatch or sod. Treat mounds by applying 1 oz Talstar P Professional per mound in 1 to 2 gallons water by sprinkling the mound until it is wet and treat 3 feet out around the mound. Use the higher volume for mounds larger than 12". Treat mounds with sufficient force to break their apex and allow the insecticide solution to flow into the ant tunnels. For best results, apply in cool weather (65 - 80°F) or in early morning or late evening hours.

⁹**Mole Cricket adults:** Achieving acceptable control of adult mole crickets is difficult because preferred grass areas are subject to continuous invasion during the early spring by this extremely active stage. Applications should be made as late in the day as possible and should be watered in with up to 0.5 inches of water immediately after treatment. If the soil is not moist, then it is important to irrigate before application to bring the mole crickets closer to the soil surface where contact with the insecticide will be maximized. Grass areas that receive pressure from adult mole crickets should be treated at peak egg hatch to ensure optimum control of subsequent nymph populations (see below).

¹⁰**Mole Cricket nymphs:** Grass areas that received intense adult mole cricket pressure in the spring should be treated immediately prior to peak egg hatch. Optimal control is achieved at this time because young nymphs are more susceptible to insecticides and they are located near the soil surface where the insecticide is most concentrated. Control of larger, more damaging, nymphs later in the year may require both higher application rates and more frequent applications to maintain acceptable control. Applications should be made as late in the day as possible and should be watered in with up to 0.5 inches of water immediately after treatment. If the soil is not moist, then it is important to irrigate before application to bring the mole crickets closer to the soil surface where contact with the insecticide will be maximized.

¹¹**Ticks (Including ticks that may transmit Lyme Disease and Rocky Mountain Spotted fever):** Do not make spot applications. Treat the entire area where exposure to ticks may occur. Use higher spray volumes when treating areas with dense ground cover or heavy leaf litter. Ticks may be reintroduced from surrounding areas on host animals. Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure. Repeat application is necessary only if there are signs of renewed activity. Limit repeat application to no more than once per seven days.

Deer ticks (*Ixodes sp.*) have a complicated life cycle that ranges over a two year period and involves four life stages. Applications should be made in the late fall and/or early spring to control adult ticks that are usually located on brush or grass above the soil surface and in mid to late spring to control larvae and nymphs that reside in the soil and leaf litter.

American dog ticks may be a considerable nuisance in suburban settings, particularly where homes are built on land that was previously field or forest. These ticks commonly congregate along paths or roadways where humans are likely to be encountered. Applications should be made as necessary from mid-spring to early fall to control American dog tick larvae, nymphs and adults.

¹²**Crane Flies:** Treatments can be made to control early to mid-season larvae (approximately August - February) as they feed on plant crowns. Treatments made to late-season larvae (approximately March, April) may only provide suppression.

ORNAMENTALS AND TREES

For ornamental applications (including but not limited to trees, shrubs, ground covers, bedding plants, and foliage plants) apply 0.125 to 1.0 fluid oz. of Talstar® P Professional Insecticide per 1,000 square feet or 5.4 to 43.5 fl. oz. per 100 gallons. Talstar® P Professional Insecticide may be diluted and applied in various volumes of water providing that the maximum label rate (1.0 fluid oz. per 1,000 square feet or 43.5 fl. oz per 100 gallons.) is not exceeded. Talstar® P Professional Insecticide may be applied through low volume application equipment by dilution with water or other carriers and providing that the maximum label rate (1.0 fluid oz. per 1,000 square feet or 43.5 fl. oz per 100 gallons) is not exceeded.

Apply the specified application rate as a full coverage foliar spray. Repeat treatment as necessary to achieve control using higher application rates as pest pressure & foliage area increases. Limit repeat application to no more than once per seven days.

Certain cultivars may be sensitive to the final spray solution. A small number of plants should be treated and observed for one week prior to application to the entire planting.

Use of an alternate class of chemistry in a treatment program is recommended to prevent or delay pest resistance.

GREENHOUSES AND INTERIORSCAPES

Use Talstar® P Professional Insecticide, either alone or tank mixed with other products, including insect growth regulators, to control a wide spectrum of insects and mites on trees, shrubs, foliage plants, non-bearing fruit and nut trees, and flowers in greenhouses and interiorscapes including hotels, shopping malls, office buildings, etc.

Calculating Dilution Rates using the Ornamental and Greenhouse Application Rates Table and the Talstar® P Professional Insecticide Dilution Chart (page 3): The following steps should be taken to determine the appropriate dilution of Talstar® P Professional Insecticide that is required to control specific pests:

- 1) Identify the least susceptible target pest (the pest requiring the highest application rate for control).
- 2) Select an application rate in terms of fluid oz. of Talstar® P Professional Insecticide.
- 3) Identify your application volume and how much spray mix you want to prepare.
- 4) Use the Dilution Chart to determine the appropriate volume of Talstar® P Professional Insecticide that must be mixed in your desired volume of water.

ORNAMENTAL and GREENHOUSE APPLICATION RATES

The application rates listed in the following table will provide excellent control of the respective pests under typical conditions. However, at the discretion of the applicator, Talstar® P Professional Insecticide may be applied at up to 1 fluid oz. per 1,000 square feet (43.5 fl. oz. per 100 gallons per acre) to control each of the pest listed in this Table. The higher application rates should be used when maximum residual control is desired.

Apply the specified rate as a full coverage foliar spray. Repeat as necessary to achieve control using higher rates as pest pressure and foliage increases.

Certain cultivars may be sensitive to the final spray solution. A small number of plants should be tested prior to application of the entire planting.

Use an alternate class of chemistry in the treatment program is recommended to prevent or delay resistance.

Pest	Application Rate Talstar® P Professional Insecticide	
	Fluid Ounces per 1,000 square feet	Fluid Ounces per 100 gallons
Bagworms ¹² Cutworms Elm Leaf Beetles Fall Webworms Gypsy Moth Caterpillars Lace Bugs Leaf Feeding Caterpillars Tent Caterpillars	0.125 - 0.25	5.4 - 10.8
Adelgids [†] Aphids Bees Beet Armyworm Beetles ^{13,†} Black Vine Weevil (Adults) Brown Soft Scales Broad Mites Budworms California Red Scale (Crawlers) ¹³ Centipedes Cicadas Citrus Thrips Clover Mites Crickets Diaprepes (Adults) Earwigs European Red Mite Flea Beetles Fungus Gnats (Adults) Grasshoppers Japanese Beetle (Adult) [†] Leafhoppers Leafrollers Mealybugs Millipedes Mites Orchid Weevil Pillbugs Plant Bugs (Including <i>Lygus spp.</i>) Psyllids [†] Scale crawlers, such as California scale, San Jose scale, etc. ¹³ Scorpions Sowbugs Spider Mites ¹⁴ Spiders Spittlebugs [†] Thrips Tip Moths Treehoppers [†] Twig Borers ¹³ Wasps Weevils ¹³ Whiteflies	0.25 - 0.5	10.8 - 21.7
Ants Imported Fire Ants** Leafminers Pecan Leaf Scorch Mite Pine Shoot Beetle (Adults) Sawfly larvae Spider Mites ¹⁴ Stink Bugs	0.5 - 1.0	21.7 - 43.5
Mosquitoes	See Mosquito Control directions for residual control rates and information on page 5	

¹²**Bagworms:** Apply when larvae begin to hatch and spray larvae directly. Applications when larvae are young will be most effective.

¹³**Beetles[†], Scale Crawlers, Twig Borers, and Weevils:** Treat trunks, stems and twigs in addition to plant foliage.

¹⁴**Spider Mites:** Talstar® P Professional Insecticide provides optimal twospotted spider mite control when applied during spring to mid-summer. Higher application rates and/or more frequent treatments may be required for acceptable twospotted spider mite control during mid- to late-summer. The addition of a surfactant or horticultural oil may increase the effectiveness of Talstar® P Professional Insecticide. Combinations of Talstar® P Professional Insecticide with other registered miticides have also proven effective. Alternately, Talstar® P Professional Insecticide applications may be rotated with those of other products that have different modes of action in control programs that are designed to manage resistance by twospotted spider mites. Consult your local Cooperative Extension Service for resistance management recommendations in your region.

**For foraging ants.

[†]Not for use in California.

Attention

Prior to applying Talstar P Professional Insecticide to wood siding, especially rough wood siding, be sure to thoroughly agitate the tank mixture. Prior to treating wood siding, test a small area and allow it to dry to be sure no deposits will form. Follow the same procedure when applying to wood surfaces in direct sunlight or the heat of the day.

Application equipment that delivers low volume treatments, such as the

Micro-Injector® or Actisol® applicators, may also be used to make crack and crevice, deep harborage, spot and surface treatments of Talstar P Professional Insecticide.

Restrictions

Do not apply this product in a way that will contact any person or pet either directly or through drift.

Do not apply a broadcast application to interior surfaces of homes.

Do not apply to pets, food crops, or sources of electricity.

Firewood is not to be burned for one month after treatment.

Use only in well ventilated areas.

Do not use on edible crops

During any application to overhead areas within the structure, cover surfaces below with plastic sheeting or similar material, except for soil surfaces in crawlspaces.

Do not allow spray to contact food, foodstuffs, food contacting surfaces, food utensils or water supplies.

Thoroughly wash dishes and food handling utensils with soap and water if they become contaminated by application of this product.

Do not treat areas where food is exposed.

During indoor surface applications do not allow dripping or run-off to occur.

Do not allow people or pets on treated surfaces until spray has dried.

Let surfaces dry before allowing people and pets to contact surfaces.

Do not apply this product in patient rooms or in any rooms while occupied by the elderly or infirm.

Do not apply in classrooms when in use.

Do not apply when occupants are present in the immediate area in institutions such as libraries, sports facilities, etc.

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 beyond the control of FMC or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold FMC and Seller harmless for any claims relating to such factors.

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 under normal conditions of use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, FMC 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. Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) seller or FMC, and buyer assumes the risk of any such use.

To the extent allowed by law, FMC or seller 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 FMC 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 FMC OR SELLER, 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.

Talstar, Talstar P Professional and FMC —Trademarks of FMC Corporation

Micro-Injector is a registered trademark of Whitmire Micro-Gen Research Laboratories

Actisol is a registered trademark of Roussel-Uclaf

Material Safety Data Sheet

TALSTAR® S INSECTICIDE

SDS #: 6320-A
Revision Date: 2011-11-10
Version 1



This MSDS has been prepared to meet U.S. OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Workplace Hazardous Materials Information System (WHMIS) requirements.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	TALSTAR® S INSECTICIDE
Formula code	6320
Active Ingredient(s)	Bifenthrin
Synonyms	FMC 54800; (2-methyl[1,1'-biphenyl]-3-yl)methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate; IUPAC: 2-methylbiphenyl-3-ylmethyl (Z)-(1RS)-cis-3-(2-chloro-3,3,3-trifluoroprop-1-enyl)-2,2-dimethylcyclopropanecarboxylate.
Recommended use	Insecticide
Manufacturer FMC Corporation Agricultural Products Group 1735 Market Street Philadelphia, PA 19103 General Information: Phone: (215) 299-6000 E-Mail: msdsinfo@fmc.com	Emergency telephone number Medical Emergencies: (800) 331-3148 (U.S.A. & Canada) +1 (651) 632-6793 (All Other Countries - Collect) For leak, fire, spill or accident emergencies, call: +1 800.424.9300 (CHEMTREC - U.S.A.) +1 703.527.3887 (CHEMTREC - Collect - All Other Countries)

2. Hazards identification

Appearance	Clear light yellow liquid
Physical State	liquid
Odor	aromatic
Physical or Chemical Hazards	Keep away from heat, sparks, and open flame.
Flammable properties	Combustible Liquid
Potential health effects	
Principle Routes of Exposure	Eye contact, Skin contact, Inhalation, Ingestion.
Acute effects	
Eyes	Irritating to eyes.
Skin	May cause sensitization by skin contact.
Inhalation	Harmful by inhalation. May cause drowsiness and dizziness. May cause irritation of respiratory tract.
Ingestion	Harmful if swallowed. Potential for aspiration if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause drowsiness and dizziness.
Chronic effects	Chronic exposure to aromatic hydrocarbons may cause headaches, dizziness, loss of sensations or feelings (such as numbness), and liver and kidney damage.

3. Composition/information on ingredients

Hazardous ingredients

Chemical Name	CAS-No	Weight %
Naphtha (petroleum), heavy aromatic	64742-94-5	70-80
Bifenthrin	82657-04-3	11
1-hexanol	111-27-3	5-10

4. First aid measures

Eye contact	Hold eyes 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 further treatment advice.
Skin contact	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.
Inhalation	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.
Ingestion	Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not induce vomiting or give anything by mouth to an unconscious person.
Notes to physician	Contains petroleum distillate. Vomiting may cause aspiration pneumonia. This product is a pyrethroid. If large amounts have been ingested, the stomach and intestines should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.

5. Fire-fighting measures

Flammable properties Combustible Liquid

Flash Point 74 °C / 165 °F
Method Tag Closed Cup

Special hazards arising from the substance or mixture

Sensitivity to Mechanical Impact not applicable
Sensitivity to Static Discharge not applicable

Extinguishing media

Suitable extinguishing media Foam. Carbon dioxide (CO₂). Dry chemical. Water spray or fog.

Advice for fire-fighters

Protective equipment and precautions for firefighters As in any fire, wear self-contained breathing apparatus and full protective gear. Isolate fire area. Evaluate downwind.

NFPA

Health Hazard 2
Flammability 2

Stability 0
 Special Hazards -

6. Accidental release measures

Personal precautions Isolate and post spill area. Wear suitable protective clothing, gloves and eye/face protection. For personal protection see section 8.

Environmental precautions Keep people and animals away from and upwind of spill/leak. Keep material out of lakes, streams, ponds, and sewer drains.

Methods for cleaning up Sweep up and shovel into suitable containers for disposal. Clean and neutralize spill area, tools and equipment by washing with bleach water and soap. Absorb rinsate and add to the collected waste. Waste must be classified and labeled prior to recycling or disposal. Dispose of waste as indicated in Section 13.

Other For further clean-up instructions call FMC Emergency Hotline number listed in Section 1 "Product and Company Identification" above.

7. Handling and storage

Handling Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.

Storage Keep in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep out of reach of children and animals. Store in original container only.

8. Exposure controls/personal protection

Exposure guidelines This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Occupational exposure controls

Engineering measures Apply technical measures to comply with the occupational exposure limits. Ensure adequate ventilation, especially in confined areas. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

Personal protective equipment

General Information If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers, These recommendations apply to the product as supplied

Respiratory protection For dust, splash, mist or spray exposures wear a filtering mask.

Eye/face protection For dust, splash, mist or spray exposure, wear chemical protective goggles or a face-shield.

Skin and body protection Wear long-sleeved shirt, long pants, socks, shoes, and gloves.

Hand protection Protective gloves

Hygiene measures Clean water should be available for washing in case of eye or skin contamination. Wash skin prior to eating, drinking, chewing gum or using tobacco. Shower or bathe at the end of working. Remove and wash contaminated clothing before re-use. Launder work clothing separately from regular household laundry.

9. Physical and chemical properties

Appearance	Clear light yellow liquid
Color	Clear light yellow
Physical State	liquid
Odor	aromatic
pH	5 (1% solution)
Melting Point/Range	No information available
Freezing point	No information available
Boiling Point/Range	not applicable
Flash Point	74 °C / 165 °F Tag Closed Cup
Evaporation rate	not applicable
Autoignition Temperature	not applicable
Flammable properties	Combustible Liquid
Vapor pressure	not applicable
Vapor density	No information available
Density	0.9 g/cm ³ @ 20°C
Water solubility	Emulsifies
Percent volatile	No information available
Partition coefficient:	not applicable
Viscosity	No information available
Oxidizing properties	not applicable

10. Stability and reactivity

Stability	Stable under recommended storage conditions.
Conditions to avoid	Heat, flames and sparks
Hazardous decomposition products	Carbon oxides. Hydrogen chloride. Hydrogen fluoride.
Hazardous polymerization	Hazardous polymerization does not occur

11. Toxicological information

Acute toxicity

There is no data available for this product. Data presented is for similar product. Large doses of bifenthrin ingested by laboratory animals produced signs of toxicity including convulsions, tremors and bloody nasal discharge. Bifenthrin does not cause acute delayed neurotoxicity. Experience to date indicates that contact with bifenthrin may occasionally produce skin sensations such as rashes, numbing, burning or tingling. These sensations are reversible and usually subside within 12 hours.

Eye contact	Irritating to eyes (rabbit).
Skin contact	Non-irritating during normal use (rabbit)
Ingestion	Vomiting after ingestion of this product may cause aspiration of aromatic hydrocarbons into the lungs, which may result in fatal pulmonary edema. Large doses of bifenthrin ingested by laboratory animals produced signs of toxicity including convulsions, tremors and bloody nasal discharge.
Inhalation	Inhalation of aromatic hydrocarbon vapors may cause dizziness, disturbances in vision, drowsiness, respiratory irritation, and eye, skin and mucous membrane irritation.
LD50 Dermal	> 2,000 mg/kg (rabbit)
LD50 Oral	520 mg/kg (rat)
LC50 Inhalation:	4.95 mg/L 4 hr (rat)

Sensitization	May cause sensitization by skin contact
<u>Chronic Toxicity - Other Ingredient(s)</u>	
Chronic Toxicity	Chronic exposure to aromatic hydrocarbons may cause headaches, dizziness, loss of sensations or feelings (such as numbness), and liver and kidney damage.
Carcinogenicity	Bifenthrin: Not recognized as carcinogenic by Research Agencies (IARC, NTP, OSHA, ACGIH). Did not show carcinogenic effects in animal experiments. The petroleum distillates present in this product are highly refined and should not be considered carcinogenic.
Mutagenicity	Bifenthrin: Not genotoxic
Neurological Effects	Tremors were associated with chronic exposure of laboratory animals to bifenthrin, which may disappear with continued exposure.
Developmental Toxicity	Bifenthrin: Not teratogenic in animal studies.
Target Organ Effects	Bifenthrin: A slight increase in male mouse urinary bladder tumors at the highest dose was probably not of toxicological concern.

ACGIH: (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

OSHA: (Occupational Safety & Health Administration)

X - Present

12. Ecological information

Ecotoxicity

Bifenthrin (82657-04-3)

Active Ingredient(s)	Duration	Species	Value	Units
Bifenthrin	EC50	Aquatic organisms	0.11 - 0.57	µg/L
Bifenthrin	96 h LC50	Fish	0.1 - 2.0	µg/L
Bifenthrin	LD50 Oral	Bobwhite quail	>1800	mg/kg
Bifenthrin	LD50 Oral	Mallard duck	>2150	mg/kg
Bifenthrin	LD50	Bee	0.1	µg/bee

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
Naphtha (petroleum), heavy aromatic	2.5 mg/L EC50 72 h (Skeletonema costatum)	LC50 19 mg/L Pimephales promelas 96 h LC50 2.34 mg/L Oncorhynchus mykiss 96 h LC50 1740 mg/L Lepomis macrochirus 96 h LC50 45 mg/L Pimephales promelas 96 h LC50 41 mg/L Pimephales promelas 96 h		EC50 0.95 mg/L 48 h
1-hexanol		LC50 89.7-106 mg/L Pimephales promelas 96 h LC50 144 mg/L Brachydanio rerio 96 h		EC50 201 mg/L 24 h

Environmental Fate

Bifenthrin (82657-04-3)

Active Ingredient(s)	Type of Test	Result
Bifenthrin	Bioconcentration factor (BCF)	1709
Bifenthrin	Half-life in soil	~85 days
Bifenthrin	log Pow	6.6
Bifenthrin	Mobility in soil	Not expected to reach groundwater
Bifenthrin	Stability in water	Stable to hydrolysis over a wide range of pH values.

Chemical Name	log Pow
Naphtha (petroleum), heavy aromatic	2.9 - 6.1
1-hexanol	2.03

Bioaccumulation Material will likely bioaccumulate in exposed species.

13. Disposal considerations

Waste disposal methods Improper disposal of excess pesticide, spray mixture, or rinsate is prohibited. If these wastes cannot be disposed of by use according to label instructions, contact appropriate disposal authorities for guidance.

Contaminated packaging Containers must be disposed of in accordance with local, state and federal regulations. Refer to the product label for container disposal instructions

14. Transport information

DOT This material is a Combustible liquid and is, therefore, not subject to the hazardous materials regulations when in non-bulk packages shipped within the USA per 49 CFR §173.150(f)(2).

Packaging Type Bulk.
Proper shipping name Combustible liquid, n.o.s.
Hazard Class Combustible liquid
UN/ID No NA1993
Packing group III
Description NA1993, Combustible liquid, n.o.s. (Aromatic hydrocarbons), PG III

TDG The "Marine Pollutant" marking is only applicable when shipped by vessel, and is not applicable when shipped only by road or rail in Canada.
Proper shipping name Environmentally hazardous substance, liquid, n.o.s.
Hazard Class 9
UN/ID No UN3082
Packing group III
Marine pollutant Bifenthrin.
Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bifenthrin, aromatic hydrocarbons), 9, PG III, Marine Pollutant

ICAO/IATA
UN/ID No UN3082
Proper shipping name Environmentally hazardous substance, liquid, n.o.s.
Hazard Class 9
Packing group III
Marine pollutant Bifenthrin
Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bifenthrin, aromatic hydrocarbons), 9, PG III, Marine Pollutant

IMDG/IMO
Proper shipping name Environmentally hazardous substance, liquid, n.o.s.

Hazard Class	9
UN/ID No	UN3082
Packing group	III
EmS No.	F-A, S-F
Marine pollutant	Bifenthrin
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bifenthrin, aromatic hydrocarbons), 9, PG III, Marine Pollutant

15. Regulatory information

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
Bifenthrin	82657-04-3	11	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	yes
Chronic Health Hazard	yes
Fire Hazard	yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

TSCA Inventory (United States of America)

Chemical Name	U.S. - TSCA (Toxic Substances Control Act) - Section 8(a) - Chemical-Specific Reporting and Recordkeeping
Naphtha (petroleum), heavy aromatic	Partially exempt chemical substance termed Petroleum Process Stream

International Regulations

Mexico - Grade

Moderate risk, Grade 2

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

B3 Combustible liquid
D2B Toxic materials



16. Other information

Revision Date: 2011-11-10
Reason for revision: (M)SDS sections updated.

Disclaimer

FMC Corporation believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specified product designated and may not be applicable where such product is used in combination with any other materials or in any process. Use of this product is regulated by the U.S. Environmental Protection Agency (EPA). It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Further, since the conditions and methods of use are beyond the control of FMC Corporation, FMC corporation expressly disclaims any and all liability as to any results obtained or arising from any use of the products or reliance on such information.

Prepared By

FMC Logo - Trademark of FMC Corporation

© 2011 FMC Corporation. All Rights Reserved.

End of Material Safety Data Sheet

D-Foam™

INSECTICIDE

EPA Reg. No. 279-3443

EPA Est. No. 11623-GA-1

SHAKE WELL

- Kills Wood Infesting Insects
- Killing Action and Residual Control
- Keeps on Killing For Up To 8 Weeks
- For Indoor/Outdoor Use
- Ready-To-Use

Broad Spectrum Insect Control

KILLS: Ants, Bees, Booklice, Boxelder Bugs, Carpet Beetles (Black, Furniture, and Varied), Centipedes, Chocolate Moths, Cigarette Beetles, Clover Mites, Cluster Flies, Cockroaches, Crickets, Dermestids, Drugstore Beetles, Elmleaf Beetles, Firebrats, Fleas, Flour Beetles (Red and Confused), Grain Beetles (Rusty, Merchant and Sawtoothed), Ground Beetles, Gnats, Lesser Grain Borers, Midges, Mole Crickets, Moths, Pillbugs, Rice Weevils, Silverfish, Small Flies, Sowbugs, Spiders, Spider Beetles, Ticks, Tobacco Moths and Wood Infesting Insects - Termites** (Subterranean, Formosan & Drywood), Carpenter Ants and Carpenter Bees .

**For localized above ground treatment only.

FOR USE IN Food Handling Establishments, Including Food Service, Manufacturing and Processing Establishments, such as Restaurants, Cafeterias, Supermarkets, Bakeries, Breweries, Dairies, Meat, Poultry & Egg Processing & Packaging Plants, Canneries, Feed Handling Establishments Including Feed Manufacturing and Processing Establishments.

Also For Use In Homes, Tents, Aircraft (cargo areas only), Apartments, Atriums, Attics, Automobiles, Basements, Bathrooms, Boats, Bottling Facilities, Buses, Cabins, Campers, Candy Plants, Carports, Cat Sleeping Quarters, Clothes Storage, Condominiums, Decks, Dens, Driveways, Garages, Gazebos, Granaries & Grain Mills, Hospitals, Hotels, Industrial Buildings, Kitchens, Laboratories, Lanais, Living Rooms, Mausoleums, Offices, Parlors, Patios, Pet Sleeping Areas, Play Rooms, Porches, Railcars, Recreational Vehicles, Schools, Ships & Vessels, Solariums, Storage Areas, Sun Rooms, Trailers, Trucks, Utility Rooms, Verandahs, Warehouses and Wineries.

Manufactured for:

FMC

FMC Corporation
2929 Walnut Street
Philadelphia, PA 19104

Net Weight: 17 oz/481.9 g

ACTIVE INGREDIENT:

Deltamethrin	0.06%
OTHER INGREDIENTS	99.94%
	100.00%

KEEP OUT OF REACH OF CHILDREN CAUTION

See Back Panel for Additional Precautionary Statements.

PRECAUTIONARY STATEMENTS

Hazards to Humans & Domestic Animals

CAUTION

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

FIRST AID

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.

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. Call a poison control center or doctor for treatment advice.

If Swallowed: Call a poison control center or doctor 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 by mouth to an unconscious person.

HOTLINE NUMBER: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-(800)-331-3148 for Emergency Assistance. For Information Regarding the Use of this Product Call 1-800-321-1FMC (1362).

ENVIRONMENTAL HAZARDS

This product is toxic to fish. Do not apply directly to any body of water. 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.

PHYSICAL OR CHEMICAL HAZARDS

Contents under pressure. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting. Do not use in the vicinity of open flame or pilot lights. Do not apply to plastic, painted or varnished surfaces or directly into electronic equipment such as radios, TVs, computers, etc. DO NOT APPLY WHERE ELECTRICAL SHOCK HAZARDS EXIST.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Remove pets, birds and cover fish aquariums before applying. In schools and nurseries do not apply when classrooms are in use nor when children are present. Do not apply this product in patient rooms while occupied or in any rooms occupied by the elderly or infirm. D-Foam Insecticide is a ready-to-use formulation intended

to kill existing above-ground infestations of all labeled pests. D-Foam Insecticide may be used in above-ground areas where conditions are conducive to infestation by subterranean termites. Test first for staining on an inconspicuous place prior to use. **SHAKE WELL BEFORE EACH USE.** Hold container upright. Remove protective cap and direct injector into crack and crevice or void. Press button down and apply as directed.

WOOD INFESTING INSECTS: Carpenter Ants, Carpenter Bees, Termites (Subterranean, Formosan and Drywood) – For control inside and outside of houses and other structures, apply as a general surface, spot, crack and crevice, or wall void application. To kill wood-destroying insect infestations in localized above-ground areas of the structure, inject into galleries or voids in damaged wood, or into spaces between damaged wooden structural members. Inject a sufficient amount (2 fl. oz of product will produce 1 gallon of foam) to allow for thorough coverage of all surfaces of the construction void being treated. D-Foam Insecticide has an expansion rate of approximately 60:1. Locate galleries by visual signs of infestation or through the use of mechanical sounding techniques. Where necessary, penetrate the galleries or voids by drilling holes to receive the injector tip. Distribute drill holes to adequately treat the infestation. Applications must be made to inaccessible structure voids by drilling and then injecting into the infested void. For termites, the purpose of such applications is to kill workers or winged forms which may be present in the treated areas at the time of application. Not recommended as sole protection against termites. For active infestations, get a professional inspection. D-Foam Insecticide applications are not a substitute for mechanical alteration, soil treatment or foundation treatment.

For Carpenter Bees: Following treatment, the entrance holes must be left open 24 hours to be certain that returning adult bees are killed. When there is no activity, the hole may be sealed with a suitable sealant.

Wood-Destroying Insects Living Inside Trees, Utility Poles and Fencing: D-Foam Insecticide must be used as a spot treatment for control of above-ground termites inside trees, utility poles, fencing and decking materials and similar structural members. Wherever possible, locate an inferior infested cavity and inject in the appropriate quantities. Repeat applications as needed to maintain control of re-infestations.

Aerial Termite Carton Nests in Trees: Termite carton nests in trees must be injected with foam using an injection applicator. Multiple injection points to varying depths may be necessary.

INDOORS

Crack and Crevice, Spot, and Surface Treatments: For the control of all labeled pests, apply thoroughly to all insect harborage areas, especially in cracks and crevices, and hidden areas around sinks and storage areas, behind baseboards, around doors and windows, behind and under cupboards, cabinets, refrigerators, dishwashers, sinks and stoves, the underside of shelves, drawers, bookcases, furniture and similar areas. Repeat as necessary.

Food/Feed Handling Establishments: This product is for use in Federally Inspected Meat and Poultry Plants as a crack and crevice treatment. Cover or remove exposed food/feed from the treatment area prior to application. All food processing surfaces should be thoroughly washed before use. Do not apply directly to food or food-handling surfaces. Except in federally inspected meat and poultry plants, spot or crack and crevice applications may be made while the facility is in operation. 1 second spray per spot. General surface applications must be used only when the facility is not in operation provided exposed food/feed has been covered or removed prior to application. Food/Feed handling establishments are defined as places other than private residences in which exposed food/feed is held, processed, prepared or served. Included also are areas for receiving, storing, packing (canning, bottling, wrapping, boxing), preparing, edible waste storage and enclosed processing systems (mills, dairies, edible oils, syrups) of food/feed. Serving areas where food/feed is exposed and the facility is in operation are also considered food/feed area.

Non-Food/Non-Feed Areas: Examples of non-food/non-feed areas include garbage rooms, lavatories, floor drains (to sewers), entries and vestibules, offices, locker rooms, machine rooms, boiler rooms, mop closets and storage (after packaging, canning or bottling).

OUTDOORS

Crack and Crevice, Spot, and Surface Treatments on Outside Surfaces of Buildings: For the control of all labeled pests, apply to the foundation of buildings where insects are active and may find entrance up to a height of 2 to 3 feet. Construction practices, soil subsidence, and other factors may create situations in which a continuous chemically treated barrier cannot be provided when using conventional liquid applications alone. When necessary, conventional treatments may be supplemented through the use of foam to provide a continuous treated barrier. Applications may be made behind veneers (concrete or wood), piers, chimney bases, into rubble foundations, into block voids, or structural voids, wall voids, under slabs, stoops, porches or to the soil in crawl spaces and other similar voids. Termite carton nests building voids may be injected with foam using an injection applicator. Multiple injection points to varying depths may be necessary. It is desirable to physically remove carton nest material from building voids when such

nests are found.

STORAGE AND DISPOSAL

Storage: Do not store near heat or open flame. Store in a cool, dry area away from children.

Pesticide Disposal and Container Handling: Do not puncture or incinerate! Non-refillable container. Do not reuse or refill this container. If empty: Place in trash or offer for recycling, if available. If partly filled: Call your local solid waste agency for disposal instructions.

NOTICE: Buyer assumes all responsibility for safety and use not in accordance with directions.

SAFETY DATA SHEET
D-Foam Insecticide

SDS # : 7094-A
Revision date: 2016-05-26
Format: NA
Version 1.03



1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name D-Foam Insecticide

Other means of identification

Product Code(s) 7094-A

Synonyms (1R,3R)-3(2,2-dibromovinyl)-2,2-dimethylcyclopropane carboxylic

Active Ingredient(s) Deltamethrin

Chemical Family Pyrethroid Ester Insecticide

Recommended use of the chemical and restrictions on use

Recommended Use: Insecticide

Restrictions on Use: Use as recommended by the label

Manufacturer Address

FMC Corporation
2929 Walnut Street
Philadelphia, PA 19104
(215) 299-6000 (General Information)
msdsinfo@fmc.com (E-Mail General Information)

Emergency telephone number

For leak, fire, spill or accident emergencies, call:
1 800 / 424 9300 (CHEMTREC - U.S.A.)
1 703 / 527 3887 (CHEMTREC - Collect - All Other Countries)

Medical Emergencies:
1 800 / 331-3148 (PROSAR - U.S.A. & Canada)
1 651 / 632-6793 (PROSAR - All Other Countries - Collect)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin sensitization	Category 1

GHS Label elements, including precautionary statements

EMERGENCY OVERVIEW

Warning**Hazard Statements**

H302 - Harmful if swallowed
H317 - May cause an allergic skin reaction
H332 - Harmful if inhaled

**Precautionary Statements - Prevention**

P264 - Wash face, hands and any exposed skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P272 - Contaminated work clothing should not be allowed out of the workplace
P302 + P352 - IF ON SKIN: Wash with plenty of water and soap
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
P363 - Wash contaminated clothing before reuse
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P312 - Call a POISON CENTER or doctor if you feel unwell
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell
P330 - Rinse mouth

Precautionary Statements - Disposal

P501 - Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

No hazards not otherwise classified were identified.

Other Information

Very toxic to aquatic life with long lasting effects. May be harmful in contact with skin.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Family Pyrethroid Ester Insecticide.

Chemical name	CAS-No	Weight %
Deltamethrin	52918-63-5	0.06
Petroleum gases, liquified, sweetened	68476-86-8	10-15
Petroleum distillates, hydrotreated light	64742-47-8	5-10
Acetyltri-n-butyl citrate	77-90-7	1-5

Synonyms are provided in Section 1.

4. FIRST AID MEASURES

Eye Contact

Hold eyes 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 further treatment advice.

Skin Contact

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.

Inhalation

Move to fresh air. If person is not breathing, call 911 (within the U.S. and Canada) or an

ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Ingestion	Clean mouth with water and afterwards drink plenty of water. Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.
Most important symptoms and effects, both acute and delayed	Allergic skin reactions. Central nervous system effects.
Indication of immediate medical attention and special treatment needed, if necessary	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Specific Hazards Arising from the Chemical	
Explosion data	
Sensitivity to Mechanical Impact	Not sensitive.
Sensitivity to Static Discharge	Not sensitive.
Protective equipment and precautions for firefighters	Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Isolate and post spill area. Remove all sources of ignition. Ventilate the area. Wear suitable protective clothing, gloves and eye/face protection. For personal protection see section 8. If ventilation is not possible wear full protection suit and chemical protective equipment.
Other	For further clean-up instructions, call FMC Emergency Hotline number listed in Section 1 "Product and Company Identification" above.
Environmental Precautions	See Section 12 for additional Ecological Information.
Methods for Containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Transfer damaged cartridges or cans to containers for later disposal. Clean and neutralize spill area, tools and equipment by washing with bleach water and soap. Waste must be classified and labeled prior to recycling or disposal. Dispose of waste as indicated in Section 13. Rinsate may be disposed at a waste water treatment plant.

7. HANDLING AND STORAGE

Handling	Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal. BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 130°F. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects.
Storage	Keep in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep out of reach of children and animals. Keep/store only in original container.
Incompatible products	None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical name	British Columbia	Quebec	Ontario TWAEV	Alberta
Petroleum distillates, hydrotreated light (64742-47-8)	TWA: 200 mg/m ³ Skin	-	-	-

Appropriate engineering controls

Engineering measures Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

Individual protection measures, such as personal protective equipment

Eye/Face Protection If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles.

Skin and Body Protection Wear suitable protective clothing. Protective shoes or boots.

Hand Protection Protective gloves

Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.

Hygiene measures Clean water should be available for washing in case of eye or skin contamination. Wash skin prior to eating, drinking, chewing gum or using tobacco. Shower or bathe at the end of working. Remove and wash contaminated clothing before re-use. Launder work clothing separately from regular household laundry.

General information If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers. These recommendations apply to the product as supplied

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Clear, Colorless Aerosolized liquid
Physical State	Aerosol
Color	Colorless
Odor	No information available
Odor threshold	No information available
pH	5.1
Melting point/freezing point	Not applicable
Boiling Point/Range	No information available
Flash point	Non-flammable per flame projection test.
Evaporation Rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	No information available
Vapor density	No information available
Density	8.227 lb/gal
Specific gravity	No information available
Water solubility	insoluble
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity, kinematic	No information available
Viscosity, dynamic	No information available
Explosive properties	No information available

Oxidizing properties No information available
Molecular weight No information available
Bulk density No information available

10. STABILITY AND REACTIVITY

Reactivity None under normal use conditions

Chemical Stability Stable under recommended storage conditions.

Possibility of Hazardous Reactions None under normal processing.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid Excessive heat.

Incompatible materials None known.

Hazardous Decomposition Products None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Product Information

LD50 Oral 500 -5000 mg/kg (rat)
LD50 Dermal > 2002 2000 mg/kg (rat)
LC50 Inhalation > 2 mg/L (rat)

Serious eye damage/eye irritation Moderately irritating (rabbit).
Skin corrosion/irritation Slightly or non-irritating (rabbit).
Sensitization Sensitizer

Information on toxicological effects

Symptoms Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic toxicity Deltamethrin: Repeated or prolonged exposure may cause central nervous system effects (decrease motor activity, tremor, difficulty breathing, impaired gait and choreoathetosis).

Mutagenicity Deltamethrin: Not genotoxic in laboratory studies.

Carcinogenicity Deltamethrin: No evidence of carcinogenicity from animal studies.

Neurological effects Deltamethrin: Neurobehavioral effects (tremors) were observed in studies with animals.

Reproductive toxicity Deltamethrin: No toxicity to reproduction in animal studies.

Developmental toxicity Deltamethrin: Not teratogenic in animal studies.

STOT - single exposure Not classified.

STOT - repeated exposure Not classified.

Target organ effects Nervous system.

Neurological effects Deltamethrin: Neurobehavioral effects (tremors) were observed in studies with animals.

Aspiration hazard No information available.

Chemical name	ACGIH	IARC	NTP	OSHA
Deltamethrin 52918-63-5		Group 3		

12. ECOLOGICAL INFORMATION

Ecotoxicity

Deltamethrin (52918-63-5)				
Active Ingredient(s)	Duration	Species	Value	Units
Deltamethrin	96 h LC50	Fish	0.26	µg/L
	48 h EC50	Crustacea	0.56	µg/L
	72 h EC50	Algae	9.1	mg/L

D-Foam Insecticide

SDS # : 7094-A
Revision date: 2016-05-26
Version 1.03

	21 d NOEC	Fish	0.032	µg/L
	21 d NOEC	Crustacea	0.0041	µg/L

Persistence and degradability Deltamethrin: Non-persistent. Does not readily hydrolyze at pH 7 and 8. Readily hydrolyzed at pH 9. Not readily biodegradable.

Bioaccumulation Deltamethrin: The substance has a potential for bioconcentration.

Mobility Deltamethrin: Immobile; Not expected to reach groundwater.

13. DISPOSAL CONSIDERATIONS

Waste disposal methods Improper disposal of excess pesticide, spray mixture, or rinsate is prohibited. If these wastes cannot be disposed of by use according to label instructions, contact appropriate disposal authorities for guidance.

Contaminated Packaging Containers must be disposed of in accordance with local, state and federal regulations. Refer to the product label for container disposal instructions.

14. TRANSPORT INFORMATION

DOT Ship as Limited Quantity per 49 CFR 173.1506. Shipping papers exempt per 49 CFR 172.200b3. Carton marks include Limited Quantity mark and orientation arrows.

UN/ID no	UN1950
Proper Shipping Name	Consumer commodity
Hazard class	ORM-D
Description	ORM-D, Consumer Commodity

TDG Ship as Limited Quantity. Carton marks include Limited Quantity and Class 9 Diamond.

UN/ID no	UN1950
Proper Shipping Name	Aerosols
Hazard class	2.2
Marine Pollutant	Deltamethrin.

ICAO/IATA Carton Marks: Limited quantity air, orientation arrows, Class 9 Diamond, Consumer Commodity, ID8000

UN/ID no	ID8000
Proper Shipping Name	Consumer commodity
Hazard class	9

IMDG/IMO Ship as Limited Quantity. Carton marks include Limited Quantity mark and orientation arrows.

UN/ID no	UN1950
Hazard class	2.2
EmS No.	F-D, S-U
Marine Pollutant	Deltamethrin

15. REGULATORY INFORMATION

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

D-Foam Insecticide

SDS #: 7094-A
Revision date: 2016-05-26
Version 1.03

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic health hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Acetic Acid 64-19-7	5000 lb			X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Acetic Acid 64-19-7	5000 lb 2270 kg	

FIFRA Information

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 swallowed or absorbed through the skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

This product is toxic to fish.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

International Inventories

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Deltamethrin 52918-63-5			X		X	X	X	X
Petroleum gases, liquified, sweetened 68476-86-8	X	X	X		X	X	X	X
Petroleum distillates, hydrotreated light 64742-47-8	X	X	X		X	X	X	X
Acetyltri-n-butyl citrate 77-90-7	X	X	X	X	X	X	X	X

D-Foam Insecticide

SDS # : 7094-A
Revision date: 2016-05-26
Version 1.03

Mexico - Grade Moderate risk, Grade 2

WHMIS Hazard Class A - Compressed gases
D2B - Toxic materials



16. OTHER INFORMATION

NFPA	Health Hazards 2	Flammability 1	Instability 0	Special Hazards -
HMIS	Health Hazards 2	Flammability 1	Physical hazard 0	Personal Protection X

Revision date: 2016-05-26
Reason for revision: Format Change

Disclaimer

FMC Corporation believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. **NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN.** The information provided herein relates only to the specified product designated and may not be applicable where such product is used in combination with any other materials or in any process. Use of this product is regulated by the U.S. Environmental Protection Agency (EPA). It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Further, since the conditions and methods of use are beyond the control of FMC Corporation, FMC corporation expressly disclaims any and all liability as to any results obtained or arising from any use of the products or reliance on such information.

Prepared By:

FMC Corporation

FMC Logo - Trademark of FMC Corporation

© 2016 FMC Corporation. All Rights Reserved.

End of Safety Data Sheet

CB-80™

INSECTICIDE

INSECTICIDE WITH PYRETHRINS

Contains Pyrethrins, A Botanical Insecticide

Provides Rapid Kill of Residential, Industrial, and Barn Pests. Excellent Flushing, 8 to 1 Synergist Ratio, Quick Knockdown, Nonaqueous, Highly Active Solvent System, Fast Knockdown and Kill

KILLS: Ants, Bed Bugs, Beetles (Carpet Beetles, Confused Flour Beetles, Red Flour Beetles, Sawtoothed Grain Beetles) Cockroaches, Crickets, Fleas, Flies, (Barn Flies, Deer Flies, Stable Flies, Horn Flies), Gnats, Grain Mites, Mosquitoes, Moths (Small Flying Moths, Indian meal Moths, Angoumois Grain Moths), Spiders, Silverfish, Weevils (Granary Weevils, Rice Weevils), Wasps

FOR USE in and around Homes, Offices, Hotels, Motels, Schools, Hospitals, Nursing Homes, Day-care Centers, Factories, Warehouses, Stores, Supermarkets, Restaurants, Food Handling Establishments, Commercial or Institutional Kitchens, Food Processing Plants, Bottling Plants, Transportation Equipment (Automobiles, Buses, Trucks, Trailers, Boats, Ships, Trains, Aircraft (Cargo areas only)), Barns, Stables, Farms, Animal Quarters, Milkrooms, and Poultry Houses

CONTAINS NO CFCs OR OTHER OZONE DEPLETING SUBSTANCES.

FEDERAL REGULATIONS PROHIBIT CFC PROPELLANTS IN AEROSOLS.

Manufactured By:



FMC Corporation
2929 Walnut Street
Philadelphia, PA 19104

Net Weight: 17 oz/482 g

FLUSHING & CONTACT

EPA Reg. No. 279-3393

EPA Est. No. 9444-LA-1

ACTIVE INGREDIENTS:

Pyrethrins	0.50%
Piperonyl Butoxide*	4.00%
OTHER INGREDIENTS**	95.50%
	100.00%

*(butylcarbityl) (6-propylpiperonyl) ether and related compounds.

**Contains Petroleum Distillates

KEEP OUT OF REACH OF CHILDREN CAUTION

See Back Panel for Additional Precautionary Statements.

PRECAUTIONARY STATEMENTS

Hazards to Humans & Domestic Animals

CAUTION

Contains Petroleum Distillate. Causes moderate eye irritation. Harmful if swallowed, inhaled, or absorbed through the skin. Avoid contact with skin, eyes or clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear the following: long-sleeve shirt, long pants, and shoes and socks.

In addition to the above PPE, applicators using a high pressure hand-wand or handheld foggers in an enclosed area must wear a half-face, full-face, or hood-style NIOSH-approved respirator with:

- a dust/mist filtering cartridge (MSHA/NIOSH approval number prefix TC-21C), or
- a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or
- a cartridge or canister with any N,R, P or HE filter.

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

SAFETY DATA SHEET
CB-80 Insecticide

SDS # : 6545-A
Revision date: 2016-05-26
Format: NA
Version 1.03



1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name CB-80 Insecticide

Other means of identification

Product Code(s) 6545-A

Synonyms Pyrethrins and Pyrethroids, Pyrethrum PIPERONYL BUTOXIDE:
Butylcarbityl(6-propylpiperonyl) ether, 1,3-Benzodioxole,
5-[[2-(2-butoxyethoxy)ethoxy]methyl]-6-propyl-

Active Ingredient(s) Piperonyl Butoxide, Pyrethrins

Recommended use of the chemical and restrictions on use

Recommended Use: Insecticide

Restrictions on Use: Use as recommended by the label

Manufacturer Address

FMC Corporation
2929 Walnut Street
Philadelphia, PA 19104
(215) 299-6000 (General Information)
msdsinfo@fmc.com (E-Mail General Information)

Emergency telephone number

For leak, fire, spill or accident emergencies, call:
1 800 / 424 9300 (CHEMTREC - U.S.A.)
1 703 / 527 3887 (CHEMTREC - Collect - All Other Countries)

Medical Emergencies:
1 800 / 331-3148 (PROSAR - U.S.A. & Canada)
1 651 / 632-6793 (PROSAR - All Other Countries - Collect)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1
Specific target organ toxicity (single exposure)	Category 3
Aspiration toxicity	Category 1
Flammable Aerosols	Category 2

GHS Label elements, including precautionary statements**EMERGENCY OVERVIEW****Danger****Hazard Statements**

H304 - May be fatal if swallowed and enters airways
 H313 - May be harmful in contact with skin
 H317 - May cause an allergic skin reaction
 H319 - Causes serious eye irritation
 H332 - Harmful if inhaled
 H335 - May cause respiratory irritation
 H336 - May cause drowsiness or dizziness

**Precautionary Statements - Prevention**

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
 P264 - Wash face, hands and any exposed skin thoroughly after handling
 P272 - Contaminated work clothing should not be allowed out of the workplace
 P210 - Keep away from heat/sparks/open flames/hot surfaces. No smoking
 P211 - Do not spray on an open flame or other ignition source
 P251 - Do not pierce or burn, even after use
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P337 + P313 - If eye irritation persists: Get medical advice/ attention
 P302 + P352 - IF ON SKIN: Wash with plenty of water and soap
 P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
 P363 - Wash contaminated clothing before reuse
 P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
 P312 - Call a POISON CENTER or doctor if you feel unwell
 P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor
 P331 - Do NOT induce vomiting

Precautionary Statements - Storage

P405 - Store locked up
 P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
 P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F

Precautionary Statements - Disposal

P501 - Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

No hazards not otherwise classified were identified.

Other Information

May be harmful if swallowed. Harmful to aquatic life with long lasting effects.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS-No	Weight %
Piperonyl butoxide	51-03-6	4
Pyrethrins	8003-34-7	0.5

1,1-Difluoroethane	75-37-6	65-75
Isopropanol	67-63-0	10-15
Petroleum distillates, hydrotreated light	64742-47-8	5-15

Synonyms are provided in Section 1.

4. FIRST AID MEASURES

Eye Contact	Hold eyes 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 further treatment advice.
Skin Contact	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.
Inhalation	Move to fresh air. If person is not breathing, call 911 (within the U.S. and Canada) or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
Ingestion	Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not induce vomiting or give anything by mouth to an unconscious person.
Most important symptoms and effects, both acute and delayed	Central nervous system effects.
Indication of immediate medical attention and special treatment needed, if necessary	Treat symptomatically. Contains petroleum distillate. May pose an aspiration pneumonia hazard.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Foam. Carbon dioxide (CO ₂). Dry chemical. Water spray.
Specific Hazards Arising from the Chemical	Contents under pressure.
Explosion data	
Sensitivity to Mechanical Impact	Not sensitive.
Sensitivity to Static Discharge	Not sensitive.
Protective equipment and precautions for firefighters	Isolate fire area. Evaluate downwind. In the event of fire, wear self contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Isolate and post spill area. Remove all sources of ignition. Ventilate the area. Wear suitable protective clothing, gloves and eye/face protection. For personal protection see section 8. If ventilation is not possible wear full protection suit and chemical protective equipment.
Other	For further clean-up instructions, call FMC Emergency Hotline number listed in Section 1 "Product and Company Identification" above.
Environmental Precautions	See Section 12 for additional Ecological Information.
Methods for Containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Transfer damaged cartridges or cans to containers for later disposal. Clean and neutralize spill area, tools and equipment by washing with bleach water and soap. Waste must be classified and labeled prior to recycling or disposal. Dispose of waste as indicated in Section 13. Rinsate may be disposed at a waste water treatment plant.

7. HANDLING AND STORAGE

Handling	Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal. BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 130°F. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects.
Storage	Keep in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep out of reach of children and animals. Keep/store only in original container.
Incompatible products	Strong oxidizing agents. Bases. Powdered earth metals.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH	Mexico
Pyrethrins (8003-34-7)	TWA: 5 mg/m ³	TWA: 5 mg/m ³	IDLH: 5000 mg/m ³ TWA: 5 mg/m ³	Mexico: TWA 5 mg/m ³ Mexico: STEL 10 mg/m ³
Isopropanol (67-63-0)	STEL 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m ³	IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m ³ STEL: 500 ppm STEL: 1225 mg/m ³	Mexico: TWA 400 ppm Mexico: TWA 980 mg/m ³ Mexico: STEL 500 ppm Mexico: STEL 1225 mg/m ³
Chemical name	British Columbia	Quebec	Ontario TWAEV	Alberta
Pyrethrins (8003-34-7)	TWA: 5 mg/m ³	TWA: 5 mg/m ³	TWA: 5 mg/m ³	TWA: 5 mg/m ³
Isopropanol (67-63-0)	TWA: 200 ppm STEL: 400 ppm	TWA: 400 ppm TWA: 985 mg/m ³ STEL: 500 ppm STEL: 1230 mg/m ³	TWA: 200 ppm STEL: 400 ppm	TWA: 200 ppm TWA: 492 mg/m ³ STEL: 400 ppm STEL: 984 mg/m ³
Petroleum distillates, hydrotreated light (64742-47-8)	TWA: 200 mg/m ³ Skin	-	-	-

Appropriate engineering controls

Engineering measures	Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.
-----------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Individual protection measures, such as personal protective equipment

Eye/Face Protection	If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles.
Skin and Body Protection	Wear long-sleeved shirt, long pants, socks, and shoes.
Hand Protection	Protective gloves
Respiratory Protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.
Hygiene measures	Clean water should be available for washing in case of eye or skin contamination. Wash skin prior to eating, drinking, chewing gum or using tobacco. Shower or bathe at the end of working. Remove and wash contaminated clothing before re-use. Launder work clothing separately from regular household laundry.
General information	If the product is used in mixtures, it is recommended that you contact the appropriate

protective equipment suppliers. These recommendations apply to the product as supplied

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Yellow, Aerosolized liquid
Physical State	Liquid Aerosol
Color	Yellow
Odor	Pyrethrins
Odor threshold	No information available
pH	No information available
Melting point/freezing point	Not applicable
Boiling Point/Range	No information available
Flash point	14.4 °C / 58 °F (Flame extension 5" - no flashback)
Evaporation Rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	No information available
Vapor density	No information available
Density	7.29 lb/gal
Specific gravity	0.8746
Water solubility	No information available
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity, kinematic	No information available
Viscosity, dynamic	No information available
Explosive properties	No information available
Oxidizing properties	No information available
Molecular weight	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity	None under normal use conditions.
Chemical Stability	Stable under recommended storage conditions.
Possibility of Hazardous Reactions	None under normal processing.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Keep away from open flames, hot surfaces and sources of ignition.
Incompatible materials	Strong oxidizing agents. Bases. Powdered earth metals.
Hazardous Decomposition Products	Carbon oxides (CO _x), Hydrogen fluoride, Carbonyl fluoride.

11. TOXICOLOGICAL INFORMATION

Product Information

LD50 Oral	2,370 mg/kg (rat)
LD50 Dermal	> 2002 2000 mg/kg (rabbit)
LC50 Inhalation	2.5 mg/L (rat)
Eye Contact	Slightly or non-irritating (rabbit)
Skin Contact	Slightly or non-irritating (rabbit)
Sensitization	Sensitizer

Information on toxicological effects

Symptoms Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Mutagenicity Piperonyl butoxide ether may affect mammalian liver microsomal detoxification enzymes.
Carcinogenicity n-Octyl bicycloheptene dicarboximide was negative in a chromosome aberration assay, Not recognized as carcinogenic by Research Agencies (IARC, NTP, OSHA, ACGIH).
Reproductive toxicity No information available.
Developmental toxicity Isopropanol has been reported to cause teratogenicity in laboratory animals.
STOT - single exposure Not classified.
STOT - repeated exposure Not classified.
Target organ effects Mice fed 0.3 or 0.9% piperonyl butoxide in the diet for 20 days had increased liver weight and other signs of liver toxicity. Male rats given up to 2.4% of piperonyl butoxide in the diet for up to 12 weeks had clinical and histologic signs of liver damage; the highest dose group showed preneoplastic changes, including enlargement of hepatocyte nuclei and multinucleated cells. Kidney damage was also seen.
Aspiration hazard No information available.

Chemical name	ACGIH	IARC	NTP	OSHA
Piperonyl butoxide 51-03-6		Group 3		
Pyrethrins 8003-34-7		Group 2A		
Isopropanol 67-63-0		Group 3		

12. ECOLOGICAL INFORMATION

Ecotoxicity

Piperonyl butoxide (51-03-6)				
Active Ingredient(s)	Duration	Species	Value	Units
Piperonyl Butoxide	LC50	Fish	3.94	ppm
	LD50	Bee	25	µg/bee
	LD50	Bobwhite quail	>2250	mg/kg
	LD50	Mallard duck	>5620	ppm

Persistence and degradability No information available.

Bioaccumulation No information available.

13. DISPOSAL CONSIDERATIONS

Waste disposal methods Improper disposal of excess pesticide, spray mixture, or rinsate is prohibited. If these wastes cannot be disposed of by use according to label instructions, contact appropriate disposal authorities for guidance.

Contaminated Packaging Containers must be disposed of in accordance with local, state and federal regulations. Refer to the product label for container disposal instructions.

14. TRANSPORT INFORMATION

DOT

Packaging Type 17 oz. Container
UN/ID no 17 oz. Container: UN1950
 13 lb. Cylinder: UN1954

CB-80 Insecticide

SDS # : 6545-A
Revision date: 2016-05-26
Version 1.03

Proper Shipping Name 17 oz. Container: Consumer Commodity
 13 lb. Cylinder: Compressed gas, flammable, n.o.s. (1,1-Difluoroethane, Isopropyl alcohol)
Hazard class 17 oz. Container: ORM-D
 13 lb. Cylinder: 2.1

TDG

UN/ID no 17 oz. Container: UN1950
 13 lb. Cylinder: UN1954
Proper Shipping Name 17 oz. Container: Aerosols
 13 lb. Cylinder: Compressed gas, flammable, n.o.s. (1,1-Difluoroethane, Isopropyl alcohol)
Hazard class 2.1

ICAO/IATA

UN/ID no 17 oz. Container ID8000
 13 lb. Cylinder: UN 1954
Proper Shipping Name 17 oz. Container: Consumer Commodity
 13 lb. Cylinder: Compressed gas, flammable, n.o.s. (1,1-Difluoroethane, Isopropyl alcohol)
Hazard class 17 oz. Container: 9
 13 lb. Cylinder: 2.1

IMDG/IMO

UN/ID no 17 oz. Container: UN1950
 13 lb. Cylinder: UN1954
Proper Shipping Name 17 oz. Container: Aerosols
 13 lb. Cylinder: Compressed gas, flammable, n.o.s. (1,1-Difluoroethane, Isopropyl alcohol)
Hazard class 2.1

15. REGULATORY INFORMATION**U.S. Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical name	CAS-No	Weight %	SARA 313 - Threshold Values %
Piperonyl butoxide - 51-03-6	51-03-6	4	1.0
Isopropanol - 67-63-0	67-63-0	10-15	1.0

SARA 311/312 Hazard Categories

Acute health hazard Yes
Chronic health hazard Yes
Fire hazard Yes
Sudden release of pressure hazard No
Reactive Hazard No

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Pyrethrins 8003-34-7	1 lb			

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Pyrethrins 8003-34-7	1 lb 0.454 kg	

CB-80 Insecticide

SDS # : 6545-A
 Revision date: 2016-05-26
 Version 1.03

FIFRA Information

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

Contains petroleum distillates. Causes moderate eye irritation. Harmful if swallowed, inhaled, or absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Piperonyl butoxide 51-03-6	X		
Pyrethrins 8003-34-7	X	X	X
1,1-Difluoroethane 75-37-6	X	X	
Isopropanol 67-63-0	X	X	X

International Inventories

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Piperonyl butoxide 51-03-6	X	X	X	X	X	X	X	X
Pyrethrins 8003-34-7		X	X		X	X	X	X
1,1-Difluoroethane 75-37-6	X	X	X	X	X	X	X	X
Isopropanol 67-63-0	X	X	X	X	X	X	X	X
Petroleum distillates, hydrotreated light 64742-47-8	X	X	X		X	X	X	X

Mexico - Grade

Serious risk, Grade 3

Chemical name	Carcinogen Status	Mexico
Pyrethrins		Mexico: TWA 5 mg/m ³ Mexico: STEL 10 mg/m ³
Isopropanol		Mexico: TWA 400 ppm Mexico: TWA 980 mg/m ³ Mexico: STEL 500 ppm Mexico: STEL 1225 mg/m ³

Chemical name	Mexico - Pollutant Release and Transfer Register - Reporting Emissions for Fabrication, Process or Use - Threshold Quantities	Pollutant Release and Transfer Register - Reporting Emissions - Threshold Quantities

CB-80 Insecticide

SDS # : 6545-A
Revision date: 2016-05-26
Version 1.03

Pyrethrins	500 2500 kg/yr	500 kg/yr
------------	-------------------	-----------

WHMIS Hazard Class

A - Compressed gases
 B5 - Flammable aerosol
 D1B - Toxic materials
 D2B - Toxic materials



16. OTHER INFORMATION

NFPA	Health Hazards 2	Flammability 3	Instability 0	Special Hazards -
HMIS	Health Hazards 2	Flammability 3	Physical hazard 0	Personal Protection X

Revision date: 2016-05-26
Reason for revision: Format Change

Disclaimer

FMC Corporation believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. **NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN.** The information provided herein relates only to the specified product designated and may not be applicable where such product is used in combination with any other materials or in any process. Use of this product is regulated by the U.S. Environmental Protection Agency (EPA). It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Further, since the conditions and methods of use are beyond the control of FMC Corporation, FMC corporation expressly disclaims any and all liability as to any results obtained or arising from any use of the products or reliance on such information.

Prepared By:

FMC Corporation

FMC Logo - Trademark of FMC Corporation

© 2016 FMC Corporation. All Rights Reserved.

End of Safety Data Sheet

User Safety Recommendations

User should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. User should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should 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 product is toxic to aquatic organisms, including fish and invertebrates. Drift and run-off may be hazardous to aquatic organisms in water adjacent to treated areas. This product may contaminate water through run-off. This product has a potential for run-off for several months or more after application. Poorly draining soils and soils with shallow water tables are prone to produce run-off that contains this product. Do not apply directly to water, 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 wash-waters or rinseate.

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

PHYSICAL OR CHEMICAL HAZARDS

Flammable. Contents under pressure. Keep away from heat, sparks and open flames. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting. Do not spray on plastic, painted or varnished surfaces or directly into electronic equipment such as radios, TVs, computers, etc.

FIRST AID

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: Immediately call a poison control center or doctor. Do not give any liquid to the person. Do not induce vomiting unless told to do so by a 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.

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.

Note to Physician: Contains petroleum distillates - may cause an aspiration pneumonia hazard.

HOTLINE NUMBER - For additional information on this product (including health concerns, medical emergencies or pesticide incidents), you may call 1-800-331-3148, twenty-four (24) hours per day, seven (7) days per week.

USE RESTRICTIONS

Entry Restrictions

- For surface spray use: Except when applying to horses and livestock, do not enter or allow others to enter treated area until sprays have dried.
- For space spray use: Except when applying to horses and livestock, do not enter or allow others to enter until vapors, mists, and aerosols have dispersed, and the treated area has been thoroughly ventilated.
- When used in hospitals, remove patients prior to treatment. Thoroughly ventilate treated area for 2 hours following treatment prior to returning patients.

Application Restrictions

- Apply this product only as specified on this label
- Not for use in outdoor residential misting systems.
- Except when applying to horses and livestock, do not apply this product in a way that will contact workers or other persons, either directly or through drift.
- Except when applying to horses and livestock, only protected handlers may be in the area during application.
- Do not remain in treated area. Exit immediately and remain outside the treated area until aerosols, vapors and/or mists have dispersed
- Do not wet articles to point of runoff or drip.
- Do not use treated article until spray has dried.
- Remove or cover exposed food and drinking water before application
- Remove or cover dishes, utensils, food processing equipment and food preparation surfaces, or wash them before use
- Do not contaminate food or feedstuffs
- Do not use in aircraft cabins
- Do not make applications during rain.
- All outdoor applications, if permitted elsewhere on this label, must be limited to spot or crack-and-crevice treatments only, except for the following permitted uses, if allowed elsewhere on this label: (1) Applications to soil or vegetation, as listed on this label, around structures; (2) Applications to lawns, turf, and other vegetation, as listed on this label; (3) Applications to the side of a building, 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; and (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.
- For indoor food handling/processing facilities: Do not make surface space spray applications when facility is in operation. During space spray applications, cover or remove exposed food. Prior to space spray applications, cover food processing surfaces or clean after treatment and before use. Do not apply more than 1 time per day.
- For agricultural premises and commercial animal housing: Do not apply more than 1 time per day.
- For direct application to non-domestic animals/livestock: Do not apply more than 1 time per day.
- When used in dairy barns or facilities: Close milk bulk tank lids to prevent contamination from spray and from dead or falling insects. Remove or cover milking utensils before application. Wash teats of animals before milking.
- Remove pets, birds and cover fish aquariums before application.
- Application is prohibited directly into sewers or drains, or to any area like a gutter where drainage to storm sewers, water bodies, or aquatic habitat can occur. Do not allow the product to enter any drain during or after application.

DIRECTIONS FOR USE

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

Test first for staining on an inconspicuous area of surface to be treated prior to use

General Volumetric Application – (Including Inaccessible Voids – Attics, False Ceilings, Wall and Equipment Voids):

Open cabinets and doors in area to be treated. Shut off air conditioners, fans, and close doors and windows before spraying. Spray for 20 seconds per 1,000 cubic feet of space. Direct spray toward areas suspected of harboring insects. Spray into hiding places such as cracks and crevices, behind sinks, cabinets, along baseboards and floors, around drains and plumbing, hitting insects with spray whenever possible. Keep area closed for 15 minutes. Open and ventilate before reoccupying. Repeat treatment as necessary. Note: when using this product in an enclosed area, such as a milkroom, barn or stable, remove animals before spraying.

FLYING INSECTS: Flies, Mosquitoes, Small Flying Moths, Wasps, Gnats – Calculate cubic feet of space to be treated. Close all doors and windows. Spray in sweeping motion to all parts of the room. Apply for 2-3 seconds per 1,000 cubic feet of space. Remove fallen insects. Repeat treatment as necessary.

FOR INDIANMEAL MOTHS AND ANGOUMOIS GRAIN MOTHS: Close doors and windows. Direct spray into all parts of room especially around stored food product containers, pallets and darkened areas. Spray 7 to 10 seconds for each 1,000 cubic feet of space. Keep area closed for 15 minutes following treatment. Repeat application weekly or as needed.

Crack & Crevice Applications:

Spray in cracks and crevices, using the crack and crevice injector provided. Spray the insect directly when possible. Spray all probable hiding places such as cracks, crevices, baseboards, sinks, cabinets, shelves, under appliances, and in food storage areas.

FOR COCKROACHES, SPIDERS, CRICKETS AND SILVERFISH: For best results, spray directly on cockroaches and thoroughly spray all parts of the room suspected of harboring these pests. Special attention should be paid to cracks, hidden surfaces, under sinks, behind stoves and refrigerators, food storage areas, and wherever these pests are suspected of hiding. Also, spray around door- and window frames. Repeat as necessary.

FOR ANTS: Spray ant trails, nests and points of entry. For initial clean-up, apply for 10-15 seconds per 100 square feet of floor area. Then periodically spray as a space treatment for 3-5 seconds per 100 cubic feet of space.

FOR CONFUSED FLOUR BEETLES, SAWTOOTHED GRAIN BEETLES, GRANARY WEEVILS, RICE WEEVILS, RED FLOUR BEETLES, GRAIN MITES: Spray into cracks and crevices, processing and handling equipment, around cartons or containers and other areas where these insects tend to congregate. Spray 30 seconds for each 100 square feet of surface. Keep area closed for 45 minutes to 1 hour after treatment. Repeat application as necessary. Infested stored food products in the home should be disposed of.

FOR BEDBUGS: Thoroughly inspect area of suspected bed bug infestation, and note potential harborage sites or actual infestations. Remove all clothing and other articles from area to be treated (including inside of dressers or closets). Infested bedding (pillows and linens), clothing, and other items must be removed and sanitized prior to application. Do not use directly on pillows, bed linens or clothes. Apply to mattresses as a spot treatment to mattress seams, edges, and tufts of bed only. Apply as a crack & crevice or spot application where evidence of bed bugs occurs, including box springs, bedsprings, the interior of the bed frame and headboard, including all crack and crevices, and joints. Do not saturate the mattress, and do not make surface applications to the mattress or bedding. Allow mattress to dry thoroughly before remaking bed. Apply as a surface application to carpeting, drapes, and flooring. Allow all treated areas to dry thoroughly before use. Use straw applicator for crack and crevice applications.

Surface Applications:

FOR FLEAS: Do not use this product directly on domestic (companion) animals (dogs, cats, puppies, or kittens). Spray sleeping quarters, bedding, floor and floor covering where pets are kept. Repeat as necessary.

FOR CARPET BEETLES: Spray directly on beetles, baseboards, floors, shelves and carpets. Repeat treatment as necessary.

Dairy Farm, Horse Barn, Beef, Cattle, Hog/Swine, and Poultry Operation Use: Close all windows and doors. Direct spray upwards, spraying for 2-3 seconds per 1,000 cubic feet of space. Do not remain in treated areas. Thoroughly ventilate after treatment. Cover milking utensils and milk to prevent contamination from spray or dead and falling insects.

POULTRY OPERATIONS: In poultry houses, close all windows and doors. Spray roosts, walls, nests, and cages thoroughly. Spray at the rate of 2-3 seconds per 1,000 cubic feet of space. Do not remain in treated areas. After 15 minutes, ventilate the area. Treat daily or as necessary.

For Direct Application to Livestock Animals: Do not use this product directly on domestic (companion) animals (dogs, cats, puppies, or kittens). Thoroughly spray entire animal from approximately 2 feet distance. Do not spray directly toward animal's eyes. Spot treat withers, shoulders, and back where saliva accumulates from head tossing.

STANCHION BARN USE: Walk behind animals and direct spray over backs, allowing 5 seconds per animal. For most effective results, apply each morning.

HORSE BARN OR STABLES: For animal application, lightly mist over back of horses and ponies from a distance of 2 feet. Do not spray directly toward the animal's face or eyes. Repeat application daily or as necessary.

HOG/SWINE USE: For animal application, direct spray over back of hogs and spray for 5 seconds per hog. Do not spray directly towards the animal's face or eyes. Repeat application daily or as necessary.

Applications in Aircraft:

This product can be applied to cargo areas of aircraft only. Do not use in aircraft cabins.

STORAGE & DISPOSAL

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

Pesticide Storage: Do not store near heat or open flame. Store in a cool, dry (preferably locked) area that is inaccessible to children and animals.

Pesticide Disposal and Container Handling: Do not puncture or incinerate! **If empty:** Place in trash or offer for recycling if available. **If partly filled:** Call your local solid waste agency for disposal instructions.

