



DeltaDust®

Insecticide

Specimen Label

- * PROVIDES QUICK CONTROL OF ANTS, BEES, COCKROACHES, FLEAS, SILVERFISH, TICKS, AND NUMEROUS STORED PRODUCT PESTS.
- * KILLS CRAWLING INSECTS UP TO 8 MONTHS WHEN LEFT UNDISTURBED.
- * FOR USE INDOORS AND OUTDOORS.
- * DOES NOT CLUMP OR ABSORB MOISTURE.
- * NON-STAINING AND ODORLESS.

ACTIVE INGREDIENT:

Deltamethrin	0.05%
OTHER INGREDIENTS:	99.95%
	<hr/> 100.00%

EPA REG. NO. 432-772

EPA EST. NO.

PRECAUCION AL USARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicado ampliamente.
 (TO THE USER: IF you cannot read English, do not use this product until the label has been fully explained to you.)

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID

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

In case of medical emergencies or health and safety inquiries or in case of fire, leaking or damage containers, call 1-800-334-7577.

For product information Call Toll-Free: 1-800-331-2867

See Side Panel For Additional Precautionary Statements

Contains

DeltaGard®

Insecticide

NET CONTENTS:

BACKED by BAYER™

PRECAUTIONARY STATEMENTS

Hazards To Humans & Domestic Animals

CAUTION

May be harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling.

Environmental Hazards

This product is extremely toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Use with care when applying in areas adjacent to any body of water. Do not contaminate water when disposing of equipment washwater.

DIRECTIONS FOR USE

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

IMPORTANT: Read the entire Directions for Use, Precautions and Disclaimer of Warranties before using this product.

STORAGE AND DISPOSAL

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

Storage: Store product in original container in a cool, dry, locked place out of reach of children.

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

Container Disposal: Triple rinse (or equivalent) then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other approved State and local procedures. **Container Disposal:** (For Homeowner) Do not reuse empty containers. **If empty:** Do not reuse this container. Place in trash or offer for recycling if available. **If partly filled:** Call your local solid waste agency or 1-800-CLEANUP for disposal instructions. Never place unused product down an indoor or outdoor drain.

Containers larger than one pound may not be used or stored in food handling establishments.

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

DeltaDust is a ready-to-use insecticide dust which exhibits effective knock-down and residual control against the pests listed when used according to label directions.

DeltaDust can be used for residual pest control in and on buildings and structures and their immediate surroundings. **Do not use in aircraft cabins.** Permitted areas of use include but are not limited to:

- *aircraft
- *animal quarters/kennels
- *apartment buildings
- *bakeries
- *breweries
- *buses
- *Canneries
- *cafeterias
- *dairies
- *food/feed manufacturing, processing and service establishments
- *greenhouses (non-commercial)

- *grocery stores and supermarkets
- *hospitals
- *hotels/motels
- *houses
- *industrial buildings and installations
- *laboratories
- *mausoleums
- *meat slaughtering and packing plants
- *mobile homes and recreational vehicles
- *nursing homes/day care centers
- *rail cars
- *restaurants
- *schools
- *sewers and underground tunnels
- *stores and institutions
- *supermarkets
- *telecommunication conduits
- *theaters
- *trucks and trailers
- *utility vaults and conduits
- *vessels
- *warehouses
- *zoos

DeltaDust is intended for applications with hand or power duster (Actisol® DPA or similar equipment), with a paint brush or by other suitable means, to hiding and runway areas and other places where insects are found.

In living areas, make applications in such a manner as to avoid depositions on exposed surfaces or introducing the material into the air. 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.

To apply insecticide directly into cracks and crevices, use a bulbous duster or other suitable equipment. Apply lightly and uniformly to infested area. Pay particular attention to cracks and crevices; service ducts; false floors and ceilings; wall voids; around electrical and telephone fittings and equipment; around water and sewer pipes; under and behind cabinets, refrigerators and sinks; around windows and door frames; along baseboards; in attics and crawl spaces. The amount to be applied will vary with the site but should usually be in the range of 2-3 grams of DeltaDust per square yard (or 0.5 lbs per 1000 square feet).

INDOOR USE

FOOD/FEED HANDLING ESTABLISHMENT APPLICATIONS

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

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).

General Surface Application: Do not apply as a general surface application in the food/feed handling areas of the facility, when the facility is in operation or foods 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 and/or Crevice applications may be made while the facility is in operation provided exposed food is covered

or removed from area being treated prior to application. Do not apply directly to food or food handling surfaces.

DeltaDust may also be applied as a void treatment using suitable equipment, as mentioned above, including Actisol® DPA equipment. Be sure to thoroughly treat service ducts, false floors and ceilings, wall voids, attics and crawl spaces. The amount of dust to be applied will vary with the site but should usually be in the range of 2-3 grams per square yard (or 0.5 lbs per 1000 square feet). Dust applications should be made in a manner to avoid deposits in exposed surfaces introducing the material in the air.

ANTS, BOXELDER BUGS, COCKROACHES (INCLUDING BOTH RESISTANT AND NON-RESISTANT STRAINS), CRICKETS, FLEAS, FIREBRATS AND SILVERFISH: Apply DeltaDust thoroughly to all areas where these pests crawl and hide, especially in those areas described above. For *ants*, apply to ant trails, around doors and windows and other places where ants enter premises.

TERMITES, CARPENTER ANTS AND CARPENTER BEES: Apply to voids or channels in damaged wooden members of a structure; to cracks, spaces or bearing joints between wooden members of a structure; or between such members and the foundation; and in locations vulnerable to termite attack. Drilling may be necessary prior to applying Deltadust in these locations, but it must be recognized that such drilling and treating of timber in a particular location may not result in complete coverage of infested and vulnerable voids or galleries. Drilling Directly overhead with subsequent application of DeltaDust should be avoided. DeltaDust can be applied in attics and crawl spaces to prevent entry of drywood and formosan termites at a rate of 0.5 lb per 1000 square feet of floor area. In these treatments, all vents and blowers should be closed. Inspect at 6 months and one year to insure that colony has been killed. Retreat if necessary. For subterranean termites the purpose of such applications of DeltaDust is to kill workers or winged forms which may be present in the treated channels at the time of treatment. Such applications are not a substitute for mechanical alteration, soil treatment or foundation treatment but merely a supplement. For active termite infestations get a professional termite inspection. Such applications are not a substitute for mechanical alteration, soil treatment or foundation treatment but merely a supplement. This supplemental treatment can be particularly supportive of new construction.

CENTPEDES, GROUND BEETLES, MILLIPEDES, SCORPIONS, SPIDERS AND SOWBUGS: Apply DeltaDust along and behind baseboards, to window and door frames, corners, pipes, storage locations, attics, crawl spaces, and other areas which these pests may enter or crawl.

WASPS AND BEES: It is generally advisable to treat wasp and bee nests in the evening when insects are less active and have returned to the nest. Wear protective clothing if deemed necessary to avoid stings. Using hand or power duster (Actisol® or similar equipment) or other suitable means, with extension tubes if necessary, thoroughly dust nest, entrance and surrounding areas where insects alight. Nests in wall voids can be located by listening with your ear against the wall. Drill a hole in the area, blow dust in and reseal. For ground wasps, dust entrance and surrounding areas. For best results check nests carefully one or two days after treatment to ensure complete kill, then remove and destroy nest to prevent emergence of newly-hatched insects. If removal is not feasible, retreat the nest, if necessary. Do not use this product to treat overhead nests.

WEBBING CLOTHES MOTHS: Use Deltadust as a crack and crevice treatment in closets and other storage areas where these pests are found. This is an adjunct treatment and will not control moth larvae already on the clothes. DO NOT apply this product directly to clothing.

CARPET BEETLES (BLACK, FURNITURE, COMMON AND VARIED): Dust where these insects are found, for example: on and under edges of floor coverings, around baseboards, under rugs and furniture, and in closets. In residential areas do not apply as a broadcast application to floors or floor coverings.

BEDBUGS: Apply DeltaDust thoroughly to all areas where these pests are typically found including: folds and tufts of mattresses, coils of springs, cracks and hollow posts of bedsteads, upholstery of chairs and sofas, picture frame moldings and all cracks and crevices in the room should be

treated. Allow powder to remain in contact with surface for 4-6 hours. Thoroughly vacuum treated areas, dispose of vacuum bag and place clean linens on bed.

STORED PANTRY & PRODUCT PESTS: To aid in the control of the exposed stages of:

cadelles	merchant grain beetles
cheese mites	red flour beetles
cigarette beetles	rice weevils
confused flour beetles	rusty grain beetles
dark meal worms	saw-toothed grain beetles
dermestid	spider beetles
drugstore beetles	tobacco moths
grain mites	yellow meal worms
granary weevils	Warehouse Moths
lesser grain borers	Indian meal
lesser mealworm	Mediterranean Flour

II. FOOD PROCESSING PESTS

(Same crawling & flying pests as in pantry & stored product pests INDOOR) and Fruitflies, Phoridflies and Sciaridflies

Clean up waste materials, dust, dirt and other debris. Thoroughly treat floors, walls and other surfaces in storage and handling areas. Apply dust in cracks and crevices, behind and under cupboards, and other difficult to reach areas where insects may hide. DO NOT apply directly on food/feed, utensils or on areas where food/feed is stored.

ORNAMENTAL PLANT PESTS

For the control of:

aphids	leafrollers
beet armyworms	orange tortrix
blister beetles	periodical cicada
boxelder bugs	plant bugs
certain leafminers	rose chafer
(Boxwood, Holly, Oak, Spruce Needle)	rose midges
elm leaf beetle	rose slugs
flea beetles	tent caterpillars
Japanese beetle	thrips
leafhoppers	weevils

SHRUBS AND ORNAMENTALS: Apply when insects or their damage first appear and repeat at weekly intervals or as necessary. Apply 8 ounces per 1000 square feet; or thoroughly apply to place a thin layer of dust on both upper and lower sides of leaves, stems and flowers.

ROSES, PETUNIAS, CHRYSANTHEMUMS, GERANIUMS, CARNATIONS AND OTHER RELATED FLOWERS: To control many leaf and flower chewing insects, apply as soon as the insect appears and repeat at 7 day intervals or as long as insects continue to appear. Apply a thin layer of dust on both upper and lower sides of leaves, stems and flowers.

OUTDOOR USE

PERIMETER TREATMENT: Use DeltaDust as a residual treatment for control of *ants, bees, centipedes, cockroaches, crickets, firebrats, fleas, ground beetles, millipedes, scorpions, silverfish, slugs, sowbugs, spiders, ticks* and *wasps*. Make a residual treatment around windows and doors, porches, screens, eaves, patios, garages, under stairways, in crawl spaces and other areas where pests hide. To help prevent the invasion of buildings and structures by these pests, apply thoroughly and uniformly to the foundation and crawl spaces where pests are active and may find entrance.

SEWER TREATMENT: Cockroach infestations in sanitary sewers may be treated with DeltaDust to provide quick knockdown and short-term population suppression. When treating sewers, one manhole per 200 linear feet should be treated. Treatments are made by removing the manhole cover and replacing with a disc of plywood bored to receive the typical flexible

hose from portable or truck-mounted ventilating equipment. Apply 1-2 ounces of dust into the ventilating air to be dispersed quickly and thoroughly through the system.

TELECOMMUNICATION TREATMENT: Apply Deltadust into telecommunication conduits, cracks and crevices, junction boxes, etc. using suitable application equipment (such as Actisol® DPA Duster, or other types of application equipment capable of applying the proper amount). The amount of Deltadust to be applied will vary, but should usually be approximately 1 gram of dust per cubic foot of conduit. [To calculate cubic feet, use the following equation:

$(\pi \times \text{radius}^2 \text{ of the conduit} \times \text{length of the conduit})$. NOTE: radius = one-half the diameter. Example: 500 linear feet of a 4" (12" = 1 foot; therefore, 0.33 ft) conduit = $3.14 \times (0.17 \text{ ft} \times 0.17 \text{ ft}) \times 500 \text{ ft} = 45.39$ cubic feet].

DeltaDust can be used in areas showing signs of active termite infestations, such as underground telecommunication cable conduits, electrical cable conduits, junction boxes and manholes. Apply dust through suitable application equipment (such as the Actisol® DPA Duster, that is capable of delivering particles suspended in a low pressure air system). Applications should be made from both ends of a run of open conduit in cases where breakdown in the conduit is suspected. Deltadust can also be applied directly to the interior of the conduits after cables have been installed. Apply at the rate of 1 gram of dust per cubic foot of conduit using equipment (i.e., Actisol® DPA Duster) that is capable of delivering particles suspended in a low pressure air system.

FIRE ANTS: Apply dust with a shaker can. Thoroughly apply to adequately cover mound and around the perimeter (18" from the outer edge of the mound). A second treatment may be necessary if complete control is not obtained. **DO NOT DISTURB THE MOUND PRIOR TO APPLICATION.** If possible, treat all colonies in the vicinity. Also, treat colonies which have not yet constructed a mound.

FLEAS AND TICKS IN RODENT BURROWS: To control fleas and ticks in and around rodent burrows around homes and other buildings, apply Deltadust with a shaker can. **For prairie dogs thoroughly treat quarantine areas and holding areas as well as burrows in open fields.** Thoroughly apply dust to adequately cover mound and around the perimeter (18" from the outer edge). Be sure to treat abandoned rodent burrows which are suspected of containing fleas and ticks. Treat for a minimum of 5 days for light rodent populations, 10 days when populations are dense. Apply as needed for control.

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following conditions, disclaimer of warranties and limitations of liability.

CONDITIONS: The directions for use of this product are believed to be adequate and should be followed carefully. However, because of manner of use and other factors beyond Bayer Environmental Sciences's control, it is impossible for Bayer Environmental Science to eliminate all risks associated with the use of this product. As a result, crop injury or ineffectiveness is always possible. All such risks shall be assumed by the user or buyer.

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Bayer Environmental Science
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Bayer Environmental Science
95 Chestnut Ridge Road, Montvale, NJ 07645
www.bayerprocentral.com

DD-SL-042905A



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102000004846

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Revision Date: 05/30/2014
Print Date: 02/09/2015

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Trade name DELTADUST® INSECTICIDE

Product code (UVP) 05952247

SDS Number 102000004846

EPA Registration No. 432-772

Relevant identified uses of the substance or mixture and uses advised against

Use Insecticide

Restrictions on use See product label for restrictions.

Information on manufacturer

Bayer Environmental Science
2 T.W. Alexander Drive
Research Triangle PK, NC 27709
United States

Emergency Telephone Number (24hr/ 7 days) 1-800-334-7577 (24 hours/day)

Product Information Telephone Number 1-800-331-2867

SDS Information or Request SDSINFO.BCS-NA@bayer.com

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Other hazards

No other hazards known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component Name	CAS-No.	Average % by Weight
Deltamethrin	52918-63-5	0.05
Crystalline quartz (respirable)	14808-60-7	2.50
Calcium carbonate	1317-65-3	95.40



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SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Inhalation	Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.
Skin contact	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.
Eye contact	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 physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

Most important symptoms and effects, both acute and delayed

Symptoms To date no symptoms are known.

Indication of any immediate medical attention and special treatment needed

Treatment Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable Carbon dioxide (CO2), Dry chemical, Foam, Water

Unsuitable None known.

Advice for firefighters

Special protective equipment for fire-fighters Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

Further information Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Contain the spread of the fire-fighting media.

Flash point not applicable

Autoignition temperature no data available

Lower explosion limit not applicable



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Upper explosion limit	not applicable
Explosivity	no data available
Dust explosion class	no data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.

Methods and materials for containment and cleaning up

Methods for cleaning up Avoid dust formation. Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations.

Additional advice Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal.

Reference to other sections Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle and open container in a manner as to prevent spillage. Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.

Hygiene measures Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.
Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.



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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Deltamethrin	52918-63-5	0.02 mg/m3 (TWA)		OES BCS*
Quartz (Silica, Crystalline) (Respirable fraction.)	14808-60-7	0.025 mg/m3 (TWA)	02 2012	ACGIH
Quartz (Silica, Crystalline) (Respirable dust.)	14808-60-7	0.05 mg/m3 (REL)	2010	NIOSH
Quartz (Silica, Crystalline) (Respirable dust.)	14808-60-7	0.1 mg/m3 (TWA)	1989	OSHA Z1A
Quartz (Silica, Crystalline) (Respirable dust.)	14808-60-7	0.1 mg/m3 (TWA)	06 2008	TN OEL
Quartz (Silica, Crystalline)	14808-60-7	14ug/m3 (ST ESL)	03 2012	TX ESL
Quartz (Silica, Crystalline) (Total dust.)	14808-60-7	0.3 mg/m3 (TWA PEL)	08 2010	US CA OEL
Quartz (Silica, Crystalline) (Respirable dust.)	14808-60-7	0.1 mg/m3 (TWA PEL)	08 2010	US CA OEL
Quartz (Silica, Crystalline) (Total dust.)	14808-60-7	0.3 mg/m3 (TWA)	2000	Z3
Quartz (Silica, Crystalline) (Respirable.)	14808-60-7	2.4millions of particles per cubic foot of air (TWA)	2000	Z3
Quartz (Silica, Crystalline) (Respirable.)	14808-60-7	0.1 mg/m3 (TWA)	2000	Z3
Calcium carbonate (Total)	1317-65-3	10 mg/m3 (REL)	2010	NIOSH
Calcium carbonate (Respirable.)	1317-65-3	5 mg/m3 (REL)	2010	NIOSH
Calcium carbonate (Total dust.)	1317-65-3	15 mg/m3 (PEL)	02 2006	OSHA Z1
Calcium carbonate (Respirable fraction.)	1317-65-3	5 mg/m3 (PEL)	02 2006	OSHA Z1
Calcium carbonate (Respirable fraction.)	1317-65-3	5 mg/m3 (TWA)	1989	OSHA Z1A
Calcium carbonate (Total dust.)	1317-65-3	15 mg/m3 (TWA)	1989	OSHA Z1A
Calcium carbonate (Respirable fraction.)	1317-65-3	5 mg/m3 (TWA)	06 2008	TN OEL
Calcium carbonate (Total dust.)	1317-65-3	15 mg/m3 (TWA)	06 2008	TN OEL
Calcium carbonate (Particulate.)	1317-65-3	5ug/m3 (AN ESL)	02 2013	TX ESL
Calcium carbonate (Particulate.)	1317-65-3	50ug/m3 (ST ESL)	02 2013	TX ESL

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"



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Exposure controls

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection	When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.
Hand protection	Chemical resistant nitrile rubber gloves
Eye protection	Safety glasses or Goggles
Skin and body protection	Wear long-sleeved shirt and long pants and shoes plus socks.
General protective measures	Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	white
Physical State	powder
Odor	weak characteristic
Odour Threshold	no data available
pH	no data available
Vapor Pressure	no data available
Vapor Density (Air = 1)	no data available
Bulk density	ca. 55.5 lb/ft ³ (loose)
Evaporation rate	not applicable
Boiling Point	not applicable
Melting / Freezing Point	not applicable
Water solubility	soluble
Minimum Ignition Energy	no data available
Decomposition temperature	no data available
Partition coefficient: n-octanol/water	no data available
Viscosity	



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	not applicable
Flash point	not applicable
Autoignition temperature	no data available
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Explosivity	no data available
Dust explosion class	no data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Thermal decomposition	no data available
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	No hazardous reactions known.
Conditions to avoid	no data available
Incompatible materials	Strong acids
Hazardous decomposition products	no data available

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes	Skin contact, Eye contact
Immediate Effects	
Skin	May be harmful if absorbed through skin.

Information on toxicological effects

Acute oral toxicity	LD50 (rat) > 5,050 mg/kg
Acute inhalation toxicity	LC50 (rat) > 26.1 mg/l Exposure time: 4 h Determined in the form of dust. LC50 (rat) > 100 mg/l Exposure time: 1 h Determined in the form of dust. Extrapolated from the 4 hr LC50.
Acute dermal toxicity	LD50 (rabbit) > 2,020 mg/kg



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Skin irritation No skin irritation (rabbit)
Eye irritation No eye irritation (rabbit)
Sensitisation Non-sensitizing. (guinea pig)

Assessment repeated dose toxicity

Deltamethrin caused neurobehavioral effects and/or neuropathological changes in animal studies. The toxic effects of Deltamethrin are related to transient hyperactivity typical for pyrethroid neurotoxicity.

Assessment Mutagenicity

Deltamethrin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment Carcinogenicity

Deltamethrin was not carcinogenic in lifetime feeding studies in rats and mice.

ACGIH

None.

NTP

None.

IARC

Deltamethrin 52918-63-5 Overall evaluation: 3

OSHA

None.

Assessment toxicity to reproduction

Deltamethrin did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity

Deltamethrin caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Deltamethrin are related to maternal toxicity.

Further information

Only acute toxicity studies have been performed on the formulated product.
The non-acute information pertains to the active ingredient(s).

SECTION 12: ECOLOGICAL INFORMATION

Toxicity to fish LC50 (Rainbow trout (*Oncorhynchus mykiss*)) 0.00091 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient deltamethrin.

Toxicity to aquatic invertebrates EC50 (Water flea (*Daphnia magna*)) 0.00056 mg/l
Exposure time: 48 h
The value mentioned relates to the active ingredient deltamethrin.

Toxicity to aquatic plants EC50 (Algae) > 9.1 mg/l



DELTADUST® INSECTICIDE

Version 3.0 / USA
102000004846

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	Exposure time: 96 h The value mentioned relates to the active ingredient deltamethrin.
Biodegradability	Deltamethrin: ; not rapidly biodegradable
Koc	Deltamethrin: Koc: 10240000
Bioaccumulation	Deltamethrin: Bioconcentration factor (BCF) 1,400; Does not bioaccumulate.
Mobility in soil	Deltamethrin: Immobile in soil
Environmental precautions	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 surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Apply this product as specified on the label.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product	Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility. Follow advice on product label and/or leaflet.
Contaminated packaging	Triple rinse containers. Then offer for recycling or reconditioning 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. Follow advice on product label and/or leaflet.
RCRA Information	Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply.

SECTION 14: TRANSPORT INFORMATION

49CFR	Not dangerous goods / not hazardous material
IMDG	
UN number	3077
Class	9
Packaging group	III
Marine pollutant	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (DELTAMETHRIN MIXTURE)

IATA

Bayer Environmental Science

SAFETY DATA SHEET



DELTADUST® INSECTICIDE

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European Inventory of Existing Commercial Substances (EINECS)

Deltamethrin	52918-63-5
Calcium carbonate	1317-65-3

EPA/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 required on the pesticide label:

Signal word: Caution!

Hazard statements: May be harmful if absorbed through skin.
Avoid contact with skin, eyes and clothing.
Wash thoroughly with soap and water after handling.

SECTION 16: OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 1 Flammability - 0 Instability - 0 Others - none

HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 0 Flammability - 0 Physical Hazard - 0 PPE -

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

Reason for Revision: Revised according to the current OSHA Hazard Communication Standard (29CFR1910.1200)

Revision Date: 05/30/2014

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer.

STERI-FAB®

BACTERICIDE-SANITIZER-FUNGICIDE-MILDEWICIDE
INSECTICIDE-DEODORANT-GERMICIDE-VIRICIDE*

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING: Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Harmful if absorbed through skin. Harmful if inhaled. Avoid contact with skin. Avoid breathing vapor or spray mist. Wear goggles or face shield, long sleeves, long pants, socks, shoes and chemical-resistant gloves made of any waterproof material. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, smoking, using tobacco or using the toilet.

ENVIRONMENTAL HAZARDS

The product is toxic to fish and aquatic invertebrates. Do not spray directly to water, or to areas where surface waters present, or to inter-tidal areas below the mean high water mark. See Directions for Use for additional precautions and requirements.

PHYSICAL OR CHEMICAL HAZARDS

Flammable. Keep away from heat and open flame.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

* Some materials that are chemically resistant to the product are barrier materials: butyl, nitrile, neoprene, polyvinyl chloride (PVC), or Viton®. For more options, follow the instructions for category C on the chemical resistant category chart.
* Applications and other handlers must wear long sleeve shirts and long pants and shoes and socks.

USER SAFETY REQUIREMENTS

* 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.

USER SAFETY RECOMMENDATIONS

* User should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
* Users 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.

DIRECTIONS FOR USE

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING. Surfaces and objects must be cleaned of gross filth before treatment. Spray surfaces and articles until thoroughly dampened and allow to remain wet for at least 10 minutes. Prior to use, test this product in an inconspicuous location for compatibility. This product may not be compatible with waxed surfaces such as waxed flooring and leather fabric.

- **AS AN INSECTICIDE, BACTERICIDE, MOLD AND MILDEWICIDE, DEODORANT AND FUNGICIDE:** Spray surfaces and articles until thoroughly dampened and allow to remain wet for at least 10 minutes.
- **TO KILL ROACHES, BEDBUGS, ANTS AND SILVERFISH:** The infested areas should be sprayed thoroughly and repeatedly directing the spray into all crevices, cracks, hiding places, seams, creases and folds.
- **TO KILL LICE AND LOUSE EGGS:** The infested areas should be sprayed thoroughly and repeatedly directing the spray into all crevices, cracks, hiding places, seams, creases and folds.
- **TO DEODORIZE AND CONTROL ODOR-CAUSING ORGANISMS ON CARPETS:** Vacuum the carpet, rug, or mat to be treated. Then apply STERI-FAB® thoroughly to top and undersides of rugs and carpets and mats to kill odor-causing bacteria and fungi and allow to remain wet for at least 10 minutes.
- **TO KILL FLEAS AND TICKS:** The infested area should be sprayed thoroughly and repeatedly directing the spray into all animal quarters and surrounding areas. For best results remove and destroy old animal bedding prior to use. Do not spray animals. Animals should be treated with an appropriate flea and tick spray designed for their use before they reenter the treated area.
- **TO KILL SOYBUGS, CENTIPEDES, FIREBRATS AND MITES:** The infested area should be sprayed thoroughly and repeatedly directing the spray into all crevices, cracks and other hiding places.
- **TO SANITIZE AND DEODORIZE RESTROOMS:** Clean gross filth from area to be treated. Apply STERI-FAB® on hard, non-porous surfaces such as sinks, toilets, and bathtubs (avoiding contact with food and animals) until a moist surface is obtained and allow to remain wet for at least 10 minutes.
- **TO PROVIDE FOR BACTERIOSTATIC, FUNGISTATIC AND DEODORIZATION DURING RESTORATION PROCESSES:** Apply STERI-FAB® to all surfaces until a moist surface is obtained and allow to remain wet for at least 10 minutes.
- **TO SANITIZE ON PRE-CLEANED, NON-POROUS, NON-FOOD CONTACT SURFACES:** Clean gross filth from area to be treated. Apply STERI-FAB® to hard, non-porous surfaces such as cabinets, walls, and door knobs until a dew-like mist is obtained and allow to remain wet for at least 10 minutes.

The suggested quantities of STERI-FAB® when used as directed, furnishes good coverage on these surfaces providing for sanitizing, bacteriostatic, and fungistatic values.

Using a hand or power sprayer, keeping approximately one foot from surface to be sprayed, apply STERI-FAB® over all surfaces until thoroughly dampened coverage is obtained. Be sure that all folds, creases, seams, etc., are also covered in this manner. Allow treated items to remain wet for at least 10 minutes and then dry before using.

FOR BACTERIOSTATIC, FUNGISTATIC AND DEODORIZATION

- **MATRESSES (SURFACES):** Spray coverage varies from 4-8 ounces depending on size. Single bed and folding cot mattresses use 4-5 ounces of STERI-FAB®. Double bed mattresses use 6-8 ounces of STERI-FAB®.
- **SOFAS-UPHOLSTERED CHAIRS (SURFACES):** Small sizes such as love seats use 4-5 ounces of STERI-FAB®. Regular size sofas use 6-8 ounces. Use 8 ounces of STERI-FAB® on convertible sofas.

FOR DISINFECTION OF NON-POROUS SURFACES

- **FOR THE DISINFECTION OF NON-UPHOLSTERED CHAIRS, BED SPRINGS, AND FURNITURE (THOSE WITH NON-POROUS SURFACES),** STERI-FAB® should be applied to all surfaces until a dew-like appearance is obtained and allow to remain wet for at least 10 minutes.
- **TO KILL HERPES SIMPLEX TYPE 2** on non-porous surfaces, apply STERI-FAB® until thoroughly dampened coverage is obtained and allow to remain wet for at least 10 minutes.
- **TO KILL ATHELETE'S FOOT FUNGUS,** apply STERI-FAB® to all suspected or contaminated non-porous hard surfaces until thoroughly dampened and allow to remain wet for at least 10 minutes.

See side panel for additional Directions for Use.

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

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Reviewed on 05/13/2015

1 Identification

- **Product identifier**
- **Trade name:** STERI FAB®
- **Article number:** No other identifiers
- **Recommended use and restriction on use**
- **Recommended use:** Disinfectant - Insecticide
- **Restrictions on use:** No further relevant information available.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
Noble Pine Products, Inc. - Castoleum Corporation
P.O. BOX 41 - CENTUCK STATION
YONKERS, NY 10710-0041
914-664-5877
- **Emergency telephone number:**
ChemTel Inc.
(800)255-3924, +1 (813)248-0585

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS07

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

- **Additional information:**

There are no other hazards not otherwise classified that have been identified.
0 percent of the mixture consists of ingredient(s) of unknown toxicity.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02 GHS07

- **Signal word** Warning

- **Hazard-determining components of labeling:**

propan-2-ol

- **Hazard statements**

H226 Flammable liquid and vapour.

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H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

- **Precautionary statements**

P210 Keep away from heat, sparks, open flames, and hot surfaces. - No smoking.

P261 Avoid breathing mist, vapors, or spray.

P264 Wash thoroughly after handling.

P280 Wear protective gloves and eye protection.

P233 Keep container tightly closed.

P271 Use only outdoors or in a well-ventilated area.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P312 Call a poison center/doctor if you feel unwell.

P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Hazard description:**

- **WHMIS-symbols:**

As of 11 February 2015, the current WHMIS system is being replaced by the GHS system. This is the classification under the older system.

B2 - Flammable liquid

D2B - Toxic material causing other toxic effects



- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 3

Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



Health = 1

Fire = 3

Reactivity = 0

* - Indicates a long term health hazard from repeated or prolonged exposures.

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

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3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

67-63-0	propan-2-ol <ul style="list-style-type: none"> ⚠ Flam. Liq. 2, H225 ⚠ Eye Irrit. 2, H319; STOT SE 3, H336 	60-80%
26002-80-2	3-phenoxybenzyl 2-dimethyl-3-(methylpropenyl)cyclopropanecarboxylate	<1.0%
7173-51-5	didecyltrimethylammonium chloride <ul style="list-style-type: none"> ⚠ Skin Corr. 1B, H314 ⚠ Acute Tox. 4, H302 	<1.0%

- **Additional information:**

For the listed ingredients, the identity and exact percentages are being withheld as a trade secret.

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Immediately remove any clothing soiled by the product.
Take affected persons out into the fresh air.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Immediately rinse with water.
If skin irritation is experienced, consult a doctor.
- **After eye contact:**
Protect unharmed eye.
Remove contact lenses if worn, if possible.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; immediately call for medical help.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
Headache
Breathing difficulty
Dizziness
Coughing
Irritant to eyes.
Gastric or intestinal disorders when ingested.
Nausea
Acidosis
Disorientation
- **Danger** Vapors have narcotic effect.

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- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
Alcohol resistant foam
Water
Carbon dioxide
Gaseous extinguishing agents
- **For safety reasons unsuitable extinguishing agents:** None.
- **Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information**
Eliminate all ignition sources if safe to do so.
Cool endangered receptacles with water in flooding quantities.
Use large quantities of foam as it is partially destroyed by the product.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation.
Keep away from ignition sources.
Protect from heat.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:**
Absorb with non-combustible liquid-binding material (sand, diatomite, acid binders, universal binders).
Dispose contaminated material as waste according to item 13.
Send for recovery or disposal in suitable receptacles.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Use only in well ventilated areas.
Prevent formation of aerosols.
Avoid splashes or spray in enclosed areas.

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- **Information about protection against explosions and fires:**
Highly flammable liquid and vapor.
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Avoid storage near extreme heat, ignition sources or open flame.
Provide ventilation for receptacles.
- **Information about storage in one common storage facility:**
Store away from foodstuffs.
Store away from oxidizing agents.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

· Components with limit values that require monitoring at the workplace:

67-63-0 propan-2-ol

PEL (USA)	Long-term value: 980 mg/m ³ , 400 ppm
REL (USA)	Short-term value: 1225 mg/m ³ , 500 ppm Long-term value: 980 mg/m ³ , 400 ppm
TLV (USA)	Short-term value: 984 mg/m ³ , 400 ppm Long-term value: 492 mg/m ³ , 200 ppm BEI
EL (Canada)	Short-term value: 400 ppm Long-term value: 200 ppm
EV (Canada)	Short-term value: 400 ppm Long-term value: 200 ppm
LMPE (Mexico)	Short-term value: 400 ppm Long-term value: 200 ppm A4, IBE

· Ingredients with biological limit values:

67-63-0 propan-2-ol

BEI (USA)	40 mg/L Medium: urine Time: end of shift at end of workweek Parameter: Acetone (background, nonspecific)
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- **Additional information:** The lists that were valid during the creation were used as basis.

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- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
- **Engineering controls:** No further relevant information available.
- **Breathing equipment:**
Not required under normal conditions of use.
Use suitable respiratory protective device when high concentrations are present.
For large spills, respiratory protection may be advisable.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- **Eye protection:**



Safety glasses

- **Body protection:**
Not required under normal conditions of use.
Protection may be required for spills.
- **Limitation and supervision of exposure into the environment** Avoid release to the environment.
- **Risk management measures** See Section 7 for additional information.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Liquid
Color:	Colorless
- **Odor:** Alcohol-like
- **Odor threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	80 °C (176 °F)
- **Flash point:** 28 °C (82 °F)
- **Flammability (solid, gaseous):** Not applicable.

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- **Auto-ignition temperature:** Not determined.
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not self-igniting.
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
- **Explosion limits:**
 - Lower:** Not determined.
 - Upper:** Not determined.
- **Vapor pressure at 20 °C (68 °F):** 59 mmHg
- **Density at 20 °C (68 °F):** <1 g/cm³ (<8.345 lbs/gal)
- **Relative density** Not determined.
- **Vapour density** Not determined.
- **Evaporation rate** Not determined.
- **Solubility in / Miscibility with Water:** Fully miscible.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - Dynamic:** Not determined.
 - Kinematic:** Not determined.
- **Other information** No further relevant information available.

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
Keep away from heat, sparks, open flames, and hot surfaces. - No smoking.
- **Possibility of hazardous reactions**
Flammable liquid and vapour.
Reacts violently with oxidizing agents.
Toxic fumes may be released if heated above the decomposition point.
Used empty containers may contain product gases which form explosive mixtures with air.
Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomized.
- **Conditions to avoid**
Keep ignition sources away - Do not smoke.
Store away from oxidizing agents.
- **Incompatible materials:** Oxidizing agents
- **Hazardous decomposition products:** Carbon monoxide and carbon dioxide

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11 Toxicological information

- Information on toxicological effects
- Acute toxicity:

- LD/LC50 values that are relevant for classification:

67-63-0 propan-2-ol

Oral	LD50	5045 mg/kg (rat)
Dermal	LD50	12800 mg/kg (rabbit)
Inhalative	LC50/4h	30 mg/l (rat)

- **Primary irritant effect:**
 - **on the skin:** Slight irritant effect on skin and mucous membranes.
 - **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Subacute to chronic toxicity:** No further relevant information available.
- **Additional toxicological information:**
 - Irritant
 - Inhalation of concentrated vapors as well as oral intake will lead to anaesthesia-like conditions and headache, dizziness, etc.
- **Carcinogenic categories**
- **NTP (National Toxicology Program)**
 - None of the ingredients is listed.
- **OSHA-Ca (Occupational Safety & Health Administration)**
 - None of the ingredients is listed.
- **Probable Routes of Exposure**
 - Inhalation.
 - Eye contact.
 - Skin contact.
- **Acute effects (acute toxicity, irritation and corrosivity):**
 - Vapors have narcotic effect.
 - Irritating to eyes.
- **Repeated Dose Toxicity:** No further relevant information available.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** The product contains materials that are harmful to the environment.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Harmful to algae

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- **Additional ecological information:**

- **General notes:**

This statement was deduced from the properties of the single components.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Due to available data on eliminability/decomposition and bioaccumulation potential a prolonged damage of the environment is unlikely.

- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

Smaller quantities can be disposed of with household waste.

Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.

Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**

- **DOT, ADR, IMDG, IATA**

UN1987

- **UN proper shipping name**



Limited Quantity for packages less than 30 kg (66 lb) and inner packagings less than 5 L (1.3 gal).

- **DOT**

- **ADR**

- **IMDG, IATA**

- **Transport hazard class(es)**

Alcohols, n.o.s. (Contains isopropyl alcohol)

1987 ALCOHOLS, N.O.S. (CONTAINS ISOPROPANOL)

ALCOHOLS, N.O.S. (CONTAINS ISOPROPANOL)

- **DOT**



- **Class**

3 Flammable liquids

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· Label	3

· ADR	
	
· Class	3 (F1) Flammable liquids
· Label	3

· IMDG, IATA	
	
· Class	3 Flammable liquids
· Label	3
· Packing group	III
· DOT, ADR, IMDG, IATA	III
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Warning: Flammable liquids
· Danger code (Kemler):	30
· EMS Number:	F-E,S-D
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	

· ADR	
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN1987, Alcohols, n.o.s. (Contains Isopropanol), 3, III

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- United States (USA)
- SARA

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

67-63-0 propan-2-ol

· TSCA (Toxic Substances Control Act):
--

All ingredients are listed.

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· **Proposition 65 (California)**

· **Chemicals known to cause cancer:**

Ethanol - listing refers specifically to alcoholic beverage consumption and is not applicable for product.

64-17-5	ethanol
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· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

Ethanol - listing refers specifically to alcoholic beverage consumption and is not applicable for product.

64-17-5	ethanol
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· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)**

EPA Product Registration : 397-13.

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:

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING:

Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Harmful if absorbed through skin. Harmful if inhaled. Avoid contact with skin. Avoid breathing vapor or spray mist. Wear goggles or face shield, long sleeved shirt, long pants, socks, shoes and chemical-resistant gloves made of any waterproof material. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present, or to inter-tidal areas below the mean high water mark. See Directions for Use for additional precautions and requirements.

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollution Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

PHYSICAL OR CHEMICAL HAZARDS

Flammable. Keep away from heat and open flame.

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 five minutes, then continue rinsing eye. Call a poison control center or doctor for 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 inhaled: Move person to fresh air. If person is not breathing call 911 or ambulance, then give artificial respiration, preferably by mouth to mouth, if possible.

If swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a

(Contd. on page 12)

Safety Data Sheet
acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 05/13/2015

Reviewed on 05/13/2015

Trade name: STERI FAB®

(Contd. of page 11)

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.

Note to physician: Probable mucosal damage may contraindicate the use of gastric lavage.

HOT LINE NUMBERS

Have the product container or label with you when calling a poison control center or going for treatment. You may also contact CHEMTEL 1-800-255-3924 for emergency medical treatment information.

STORAGE AND DISPOSAL**PESTICIDE STORAGE**

Keep from freezing. Store in ventilated areas. Do not contaminate water, food or feed by storage and disposal. Dispose leftovers in landfill approved for pesticides.

CONTAINER DISPOSAL

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a 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. Offer for recycling, if available or discard in trash.

· **IARC (International Agency for Research on Cancer)**

67-63-0	propan-2-ol	3
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· **TLV (Threshold Limit Value established by ACGIH)**

67-63-0	propan-2-ol	A4
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· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **State Right to Know Listings**

None of the ingredients is listed.

· **Canadian substance listings:**· **Canadian Domestic Substances List (DSL)**

All ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients is listed.

· **Canadian Ingredient Disclosure list (limit 1%)**

67-63-0	propan-2-ol
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· **Other regulations, limitations and prohibitive regulations**

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

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of preparation / last revision** 05/13/2015 / -

(Contd. on page 13)

Safety Data Sheet
acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 05/13/2015

Reviewed on 05/13/2015

Trade name: STERI FAB®

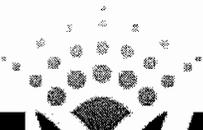
(Contd. of page 12)

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
WHMIS: Workplace Hazardous Materials Information System (Canada)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Flam. Liq. 2: Flammable liquids, Hazard Category 2
Flam. Liq. 3: Flammable liquids, Hazard Category 3
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

Sources

SDS Prepared by:
ChemTel Inc.
1305 North Florida Avenue
Tampa, Florida USA 33602-2902
Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573
Website: www.chemtelinc.com



NUVAN[®]

PROSTRIPS[®]

INTENDED FOR SALE TO AND USE BY PEST MANAGEMENT PROFESSIONALS ONLY

How it works: NUVAN PROSTRIPS utilizes controlled release technology to slowly diffuse a deep penetrating vapor in enclosed spaces for up to 4 months. The clean, odorless vapor is evenly distributed throughout the enclosed treatment area, killing visible and hidden insects on contact and preventing new insect infestations (while you're away).

ACTIVE INGREDIENT:	
Dichlorvos (<i>2,2-dichlorovinyl dimethyl phosphate</i>).....	18.6%
INERT INGREDIENTS:	81.4%
Total	100.0%

This product contains the toxic inert ingredient Bis (2-ethylhexyl) adipate (DEHA) at 19.8%.

**KEEP OUT OF REACH OF CHILDREN
WARNING**

EPA Reg. No. 5481-553

EPA Est. No. 42836-TX-01

Net Weight: 12 X 16 grams


4100 E. Washington Blvd.
Los Angeles, CA 90023 U.S.A
1-888-462-6822

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

WARNING: May be fatal if swallowed. Do not get in mouth, Harmful if inhaled. Causes moderate eye irritation. Avoid breathing vapors. Avoid contact with eyes or clothing. Wear chemical resistant gloves. After prolonged storage, a small amount of liquid may form on strip. Do not get liquid in eyes. 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. Not to be taken internally by humans or animals.

FIRST AID	
IF SWALLOWED	<ul style="list-style-type: none"> • Call a 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 by a 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 ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. • Call a poison control center or doctor for further 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.
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.
NOTE TO PHYSICIAN	
<p>Probable mucosal damage may contraindicate the use of gastric lavage. POISONING SYMPTOMS: This product is a cholinesterase inhibitor. Symptoms include weakness, headache, tightness in chest, blurred vision, non-reactive pin point pupils, salivation, sweating, nausea, vomiting, diarrhea, and abdominal cramps. TREATMENT: Atropine is the specific therapeutic antagonist of choice against parasympathetic nervous stimulation. If there are signs of parasympathetic stimulation, atropine sulfate should be injected at 10 minute intervals in doses of 1 to 2 milligrams until complete atropinization has occurred. Morphine is contraindicated. 2-PAM is also antidotal and may be administered in conjunction.</p>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
FOR THE FOLLOWING EMERGENCIES, PHONE 24 HOURS A DAY:	
For Medical Emergencies phone:.....1-888-681-4261	
For Transportation Emergencies, including spill, leak or fire, phone: CHEMTREC®.....1-800-424-9300	
For Product Use Information phone: AMVAC®.....1-888-462-6822	

STOP! READ ENTIRE LABEL BEFORE USE

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Wearing gloves, remove the insecticide strip from sealed bag when ready to use and place strip in provided holder if treatment area is routinely accessed by people or pets. Do not allow children to handle new or used strips. Place in desired location away from windows and out of reach of children and pets. Drafts, weather and other conditions may affect the performance, but treatment usually lasts for four (4) months. One 16 g strip will treat 100 to 200 cu. ft. Record the date of installation and replace with a new, fresh, full-strength strip at the end of four (4) months or when effectiveness diminishes. Do not use in hospitals or clinic rooms, such as patient rooms, wards, nurseries, operating or emergency areas. Within homes, use only in closets, wardrobes, and cupboards. Do not use in closets and wardrobes of rooms where infants, children and the sick or aged are or will be present for any extended period of confinement. Do not use in kitchens (except cupboards), restaurants or areas where food is prepared or served. Do not use in any area of the home where people will be present for extended periods of time. Do not use in the food/feed areas of food/feed processing or food/feed manufacturing or food/feed service establishments. Food/feed areas of these establishments where the product is not permitted for use 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. Non-food/feed areas of these establishments where the product can be used are areas such as garbage rooms, lavatories, floor drains (to sewer) entries and vestibules, offices, locker rooms, machine rooms, boiler rooms, utility equipment, garages, mop closets, and product storage (after canning or bottling). This product controls flies, gnats, mosquitoes, moths, silverfish, cockroaches, spiders, beetles, earwigs and other pests as listed.

Only available in the following sizes: 16 gram (0.56 oz), 10.5 gram (0.37 oz) and 5.25 gram (0.19 oz) pest strip sizes.

NUVAN PROSTRIP is intended for sale to and use by pest management professionals only. This product is NOT intended for sale to or use by homeowners. Place strips in areas including garages, sheds, attics, crawl spaces, pantries, cupboards, closets, museums, museum collections, animal buildings, barns, storage units, trash bins, grain bins, pest traps, utility boxes, vacation homes, cabins, out houses, mobile homes, recreational vehicles, boats, farm houses, and ranch houses. Also use strips to control pests around non-perishable packaged, bagged or bulk raw and processed agricultural commodities (including corn, soybeans, grains, cocoa beans, and peanuts). When properly placed, strips provide control of pests for up to four months depending upon local conditions. Replace strip with a fresh strip as needed. See below for more detailed use instructions.

Each 16 gram strip treats 100 to 200 cubic feet of space. Always use the appropriate number of strips for the space intended to be treated. Place strip uniformly in the area to be treated to facilitate a uniform treatment of the space. Strip provides continuous control of pests in treated areas through controlled release technology.

Within homes, use only in closets, wardrobes, and cupboards. Also for use in storage units, garages, attics, crawl spaces, boathouses, museum collections, garbage cans, trash dumpsters, animal buildings, milk rooms, catch basins, bulk raw grain, storage bins, enclosed utility boxes, reptile houses, and terrariums.

HOUSEHOLD, INDUSTRIAL, AND COMMERCIAL USES

Within Homes, Use Only in Closets, Wardrobes, and Cupboards

Garages, Storage Units, Attics, Crawl Spaces, Boathouses

NUVAN PROSTRIP kills flies, mosquitoes, gnats and other insects as listed for up to four (4) months. Wearing gloves, remove the insecticide strip from sealed bag when ready to use and place strip in provided holder if treatment area is routinely accessed by people or pets. Hang or place, out of reach of children and pets, in an open space of an enclosed area, away from windows. Do not allow children to handle new or used strips. One 16 gram strip will treat approximately 100 to 200 cubic feet. Replace with a new strip at the end of four (4) months or as needed.

Garbage Cans, Trash Dumpsters and Trash Receptacles

For control of flying and crawling pests, place the appropriate number of strips within the trash receptacles such as compactors, garbage chutes, garbage rooms, garbage bins, and others. Strip provides control of pests within trash receptacles for up to four months.

Animal Buildings

Use NUVAN PROSTRIP to control pests in animal buildings including stalls, barns, milk rooms, kennels, pens, poultry houses, manure storage and other such areas. Do not contaminate milk. Place strip in manure collection areas such as beneath egg layers and broilers but do not allow strip to be placed in areas directly occupied by poultry. Place the appropriate number of strips for the space to be treated. Strip will control pests for up to four months.

Milk Rooms

NUVAN PROSTRIP controls flies, mosquitoes and gnats in milk rooms and bulk storage rooms. DO NOT contaminate milk or milking equipment.

Agricultural Commodities

Use NUVAN PROSTRIP to control pests of non-perishable agricultural commodities, grains, bulk foodstuffs, packaged foods and other similar items. Do not contaminate foods. Place the appropriate number of strips for the headspace (volume) to be treated. Strip will control pests for up to four months.

Catch Basins

Use NUVAN PROSTRIP to control mosquitoes and other pests in Catch Basins where water accumulates and mosquitoes may breed. Place the appropriate number of strips for the space to be treated. Place strip by suspending about ten inches above the water surface to control mosquitoes. Strip may control mosquitoes for up to four months.

Enclosed Utility Boxes and Utility Chases

Use NUVAN PROSTRIP to control ants (including fire ants), spiders, wasps, hornets and other pests within electric junction boxes, plumbing control boxes, pump houses and other such utility boxes as needed. Place the proper number of strips for the space to be treated. Strip will control pests for up to four months.

Reptile Houses and Terrariums Occupied by People for Less than 4 Hours Per Day

Use NUVAN PROSTRIP to control mites on reptiles and other pests in reptile enclosures, displays, reptile houses, and terrariums. Place strip such that the reptile and desired animals within the enclosure or terrarium will not come in direct contact with the strip. Do not over treat. Strip is NOT intended for treatment of aviaries or birdcages. Place the appropriate number of strips in a suitable place to provide control. Strip must be removed after the 48 hour treatment interval.

Museum Collections Occupied by People for Less than 4 Hours Per Day

Use NUVAN PROSTRIP to protect museum collections and other similar materials from damaging pests when this is a concern. Place strip in close proximity or within collection boxes using care to avoid contact with collectable and valuable items.

For Control of Bedbugs and Bedbug Eggs

NUVAN PROSTRIP may be used to control crawling bedbug nymphs and adults exposed to product vapors for 48 hours. In difficult to treat areas, a minimum treatment time of 72 hours will provide better results. Strip may be used to control bedbugs that have entered various items in an infested structure including, but not limited to: electronics, appliances, footwear, art work, collectibles, plush toys, clocks, radios, wall hangings, telephones, computers, printers, mattresses, box springs, books, lamps, furniture and other such items. Place infested items in a suitable plastic bag, poly sheeting that is completely sealed by adhesive tape on all sides, container or room that is closed to contain the strip treatment. Plastic bags or poly sheeting should be at least 2-mils thick. Any mattress or box springs to be treated must be fully enclosed with a single strip within a large plastic bag or within poly sheeting with all edges taped closed. Do not sleep or lay on mattress while in treatment bag. The closed volume for treatment should not exceed the volume to be treated, for the size of the strip used. Take care to avoid direct contact of the strip with the surface of items being treated. Seal items in the containment for a minimum of 48 hours to kill bedbug nymphs and adults. To kill any bedbug eggs, if suspected to be present, seal items in the treated space for seven days. Seal plastic bags and poly sheeting with as much air space around the treated article as is practical as this will enhance the exposure to the product vapors. Proper seal can be attained by any appropriate manner such as the use of tape, twist ties or other means. Professionals should test for adequate seal by testing for the escape of air from the sealed bag. Identify sealed treatment by a label indicating a pesticide treatment is in process that should not be disturbed by unauthorized persons. The label should include the date, pest professional person or company responsible and contact telephone number. When treatment is completed, remove treated items from the treatment in a well ventilated area and aired out for a period of not less than two hours. Discard plastic treatment bag or treatment poly sheeting and used pest strip in trash. Do not allow children to handle plastic treatment bags or treatment poly sheeting or new or used insecticide strips.

How much space will one strip treat?

Strip Size	Treats	Approx. Equivalent to Area Measuring
16 grams	100 to 200 cu. ft.	8' x 8' x 3' = 192 cu. ft.

Always use the appropriate size and number of strips for the space being treated. If more than one is required, distribute them within the space equally.

HOUSEHOLD USES

Within Homes, Use Only in Closets, Wardrobes, and Cupboards

NUVAN PROSTRIP gives continuous protection against moths, silverfish, cockroaches and other insects as listed in closets, wardrobes and cupboards for up to four (4) months and leaves no smell (*odor*). Wearing gloves, remove the insecticide strip from sealed bag when ready to use and place strip in provided holder if treatment area is routinely accessed by people or pets. Hang or stand on wardrobe or closet rail, ensuring that strip does not contact clothes or fabrics and that air can circulate around the strip. Use one 16 g strip to treat 100 to 200 cu. ft. for up to four (4) months. If more than one is required, distribute them within the space equally. Keep the space closed. Record the date of installation so that the old strip may be replaced with a new, fresh, full-strength strip at the end of the four (4) month period or when effectiveness diminishes.

Do not use more than the number of strips recommended for the space to be treated. Do not use in closets and wardrobes of rooms where infants, children and the sick or aged are or will be present for any extended period of confinement. Do not use where unwrapped food is stored or allow the strip to come into contact with food or cooking utensils. Do not allow children or pets to play or sleep in these areas when treatment is in progress. Do not allow children to handle new or used strips.

Attics, Garages, and Enclosed Crawl Spaces

DO NOT USE IN AREAS WHERE PEOPLE WILL BE PRESENT FOR AN EXTENDED PERIOD OF TIME.

NUVAN PROSTRIP kills flies and other insects as listed for up to four (4) months. Wearing gloves, remove the insecticide strip from sealed bag when ready to use and place strip in provided holder if treatment area is routinely accessed by people or pets. Do not allow children to handle new or used strips. Hang or stand, out of reach of children and pets, in an open space of an enclosed area, away from windows. Do not allow children to handle new or used strips. Calculate cubic feet of air space to determine the number of strips required for treatment. Hang strips so as not to impede air circulation. When multiple strips are required, distribute them uniformly within the treated space. Record the date of installation so that the old strip may be replaced with a new, fresh, full-strength strip at the end of the four (4) month period or when effectiveness diminishes.

STORAGE AND DISPOSAL

Storage: Do not contaminate water, food or feed by storage or disposal. Do not open or remove from package before ready to install. Store in a cool dry place.

Foil Pouch

Do not open or remove from package before ready to use. **Disposal: If empty:** Place in trash or offer for recycling if available. **If partly filled:** Call your solid waste agency or 1-800-CLEANUP for disposal instructions. Never place unused product down any indoor or outdoor drain.

Outer Container

Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or dispose of the empty container in trash.

LIMITED WARRANTY AND DISCLAIMER

The manufacturer warrants (a) that this product conforms to the chemical description on the label; (b) that this product is reasonably fit for the purposes set forth in the directions for use, subject to the inherent risks referred to herein, when it is used in accordance with such directions; and (c) that the directions, warnings, and other statements on this label are based upon responsible experts' evaluations of reasonable tests of effectiveness, of toxicity to laboratory animals and to plants and residues on food crops, and upon reports of field experience. Tests have not been made on all varieties of food crops and plants, or in all states or under all conditions.

THERE ARE NO EXPRESS WARRANTIES OTHER THAN THOSE SET FORTH HEREIN. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW THE MANUFACTURER NEITHER MAKES NOR INTENDS, NOR DOES IT AUTHORIZE ANY AGENT OR REPRESENTATIVE, TO MAKE ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, AND IT EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE, OR ANY WARRANTY OF QUALITY OR PERFORMANCE. THIS WARRANTY DOES NOT EXTEND TO, AND THE BUYER SHALL BE SOLELY RESPONSIBLE FOR, ANY AND ALL LOSS OR DAMAGE WHICH RESULTS FROM THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE LABEL DIRECTIONS, WARNINGS OR CAUTIONS.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW BUYER'S EXCLUSIVE REMEDY AND MANUFACTURER'S OR SELLER'S EXCLUSIVE LIABILITY FOR ANY AND ALL CLAIMS, LOSSES, DAMAGES, OR INJURIES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER OR NOT BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE, SHALL BE LIMITED, AT THE MANUFACTURER'S OPTION, TO REPLACEMENT OF, OR THE REPAYMENT OF THE PURCHASE PRICE FOR, THE QUANTITY OF PRODUCT WITH RESPECT TO WHICH DAMAGES ARE CLAIMED. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW MANUFACTURER OR SELLER SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

AMVAC offers this product, and Buyer accepts it, subject to the foregoing Limited Warranty which may be varied only by agreement in writing signed by an authorized representative of AMVAC.

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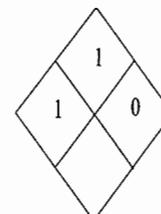
Chemtrec is a trademark of the American Chemistry Council, Inc.

Proposition 65: Warning: This product contains a chemical known to the State of California to cause cancer.

AMVAC Chemical Corporation
4100 E. Washington Boulevard
Los Angeles, CA 90023 USA.
1-888-462-6822

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION



PRODUCT NAME(S): NUVAN® ProStrips; NUVAN® ProStrip+; ALCO® Small NO-PEST STRIP; AMVAC Small INSECT STRIP; ALCO® Small PEST STRIP; ALCO® Large NO-PEST STRIP; AMVAC Large INSECT STRIP; ALCO® Large PEST STRIP; AMVAC Small Pro-Strip; AMVAC Large ProStrip*; AMVAC Insect Shield™; AMVAC Insect Shield Max™

GENERAL USE: Insecticide

PRODUCT DESCRIPTION: Yellow or blue plastic strip with a mild chemical odor

EPA REGISTRATION NUMBER(S): 5481-338; 5481-344; 5481-348; 5481-531; 5481-532; 5481-533; 5481-334; 5481-553; 5481-554

HEALTH CANADA REGISTRATION NUMBER: Not registered in Canada

MSDS No.: 194_18

MSDS REVISION DATE: 25 May 2011

MANUFACTURER:
AMVAC CHEMICAL CORPORATION
4100 E. Washington Blvd.
Los Angeles, CA 90023-4406
PHONE: 323-264-3910
FAX: 323-268-1028

EMERGENCY TELEPHONE NUMBERS:
MANUFACTURER: 323-264-3910
TRANSPORTATION (24 HOURS)
CHEMTREC: 800-424-9300
OTHER (24 HOURS)
AMVAC: 323-264-3910

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	WT %	CAS No.
2,2-Dichlorovinyl dimethyl phosphate (DDVP, DICHLORVOS)	18.6% - 20%	62-73-7
Other Ingredients	80% - 81.4%	

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)

COMPONENT	HAZARD	OSHA PEL*	ACGIH TLV*
2,2-Dichlorovinyl dimethyl phosphate (DDVP)	POISON Cholinesterase inhibitor; Possible carcinogen	1.0 mg/m ³	0.1 mg/m ³

* Exposure Limits 8 hrs. TWA (ppm)

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

CAUTION: Contains a Cholinesterase Inhibitor. Repeated inhalation or skin contact with Dichlorvos (DDVP) may, without symptoms, progressively increase susceptibility to Dichlorvos (DDVP) poisoning.

May be Toxic to fish, birds, and other wildlife when exposed to large quantities of strips.

POTENTIAL HEALTH EFFECTS

ROUTE(S) OF ENTRY: Under normal use conditions the amount of DDVP given off by the product described in this MSDS is not sufficient to cause ingestion, skin, eye or inhalation hazards. However, under extreme conditions this product may be fatal if sufficient DDVP is absorbed through the eye or skin, is ingested or is inhaled. Overexposure may produce acute cholinesterase depression.

SIGNS OF ACUTE OVEREXPOSURE: Acute cholinesterase depression may be evidenced by headache, nausea, vomiting, diarrhea, abdominal cramps, excessive sweating, salivation and tearing, constricted pupils, blurred vision, tightness in chest, weakness, muscle twitching and confusion; in extreme cases, unconsciousness, convulsions, severe respiratory depression and death may occur.

SIGNS OF CHRONIC OVEREXPOSURE: Repeated exposures to small doses of DDVP and other organophosphates may lower the cholinesterase to levels where the above symptoms of acute overexposure are observed.

CARCINOGENICITY: EPA under its 1999 proposed Guidelines for Carcinogen Risk Assessment has classified DDVP as having "suggestive evidence of carcinogenicity, but not sufficient to assess human carcinogenic potential." IARC lists DDVP (Dichlorvos) as being possibly carcinogenic to humans (Group 2B). **CARE SHOULD BE EXERCISED IN HANDLING DDVP AND ITS FORMULATIONS.**

MEDICAL CONDITIONS POTENTIALLY AGGRAVATED BY EXPOSURE: Preexisting conditions which lower cholinesterase levels increase vulnerability to cholinesterase depression. These include: (for plasma) genetic cholinesterase deficiency; advanced liver disease; chronic alcoholism; malnutrition; dermatomyositis; existing toxicity from exposure to carbon disulfide; benzalkonium salts, organic mercury compounds, ciguatoxins or solanines; and (for RBC) hemolytic anemias.

4. FIRST AID MEASURES

DDVP IS A CHOLINESTERASE INHIBITOR. A PHYSICIAN SHOULD BE CONTACTED IN ALL CASES OF SUSPECTED OVEREXPOSURE TO DDVP AND ITS FORMULATIONS.

EYES: Immediately flush the eyes with copious amounts of clear, cool running water for a minimum of 15 minutes. Hold the eyelids apart during the flushing to ensure rinsing of the entire surface of the eyes and lids with water. Contact a physician immediately. If there will be a delay in getting medical attention, rinse the eyes for at least another 15 minutes.

INHALATION: Remove victim to fresh air. If breathing has ceased, clear the victim's airway and start mouth-to-mouth artificial respiration. If breathing is difficult, give oxygen. Contact a physician immediately.

INGESTION: Induce vomiting immediately by giving two glasses of water and sticking a finger down the throat. Never give anything by mouth to an unconscious person. Contact a physician immediately.

SKIN: Immediately flush all affected areas with large amounts of clear water for at least 15 minutes. Remove contaminated clothing. Do not attempt to neutralize with chemical agents. Wash clothing before reuse. If skin irritation develops, contact a physician immediately.

ATTENTION: EXAMINING PHYSICIAN - Special medical Considerations:

This product contains an Organophosphate (OP) Insecticide. However, it is the opinion of the manufacturer/supplier, and their Occupational Medical consultant, that any significant exposure to this OP Insecticide is highly unlikely. Based upon the formulation of the pest strip, the individual's contact with the OP is extremely limited by design. Therefore, the examining Physician should exercise prudent judgment in determining the causation of the patient's symptoms - taking care to not overlook multiple other etiologies of the patient's symptoms. In the USA and other countries, contact your local or national poison control center for more information. If it is established that OP poisoning has occurred, the following steps are recommended.

Establish airway and oxygenation. IV Atropine sulfate is the antidote of choice. Moderately severe poisoning: use 0.4-2.0 mg in adults or 0.05 mg/kg in children. Repeat every 15 minutes until atropinization is achieved. Severe poisoning may require larger doses. Cholinergic toxicity may recur as atropinization wears off; monitor patient closely. Draw blood for RBC and plasma cholinesterase. In addition, Pralidoxime (2-PAM) is indicated during the first 36 hours in severe poisonings. Slow IV administration (no less than 2 minutes) of 1 gm in adults or 20-50 mg/kg in children may be repeated in 1 to 2 hours if muscle weakness, twitching, and/or respiratory depression persist. Avoid morphine, aminophylline, phenothiazines, reserpine, furosemide and ethacrynic acid.

Bathe and shampoo contaminated skin and hair. If ingested, empty stomach. If victim is alert, Syrup of Ipecac (2 tablespoons in adults, 1 tablespoon in small children) followed by water (2 glasses for adults, 1 glass for children) is indicated. If symptoms such as loss of gag reflex, convulsions, or unconsciousness occur before emesis, gastric lavage should be considered following intubation with a cuffed endotracheal tube.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

Flash Point: Not applicable

Autoignition Temperature: Not available

Flammable Limits:

Lower flammable limit: None established

Upper flammable limit: None established

Flammability: This is a combustible solid that will support fire if it is preheated (NFPA rating = 1)

EXPLOSIVITY

Mechanical Impact: Not explosive

Static Discharge: Will not occur

HAZARDOUS COMBUSTION PRODUCTS: This product will emit toxic fumes when burned, including hydrogen chloride and carbon monoxide. Vapors of the unburned product may also be hazardous. Contact with the fumes and vapors should be avoided by staying upwind and by wearing impervious clothing and full face respirators..

EXTINGUISHING MEDIA: Dry chemical, carbon dioxide, foam, water fog.

FIRE FIGHTING INSTRUCTIONS: Evacuate the area. Use self-contained breathing apparatus. Water spray and fog may be helpful in reducing flame intensity and absorbing irritating fumes. Treated area should be diked to prevent runoff.

6. ACCIDENTAL RELEASE MEASURES

GENERAL: Clean up spilled strips immediately. Strips that have been dropped should be picked up for reuse or disposal. If the strips are in their foil packages no safety equipment is required. Simply pick up the strips and store until ready to use.

SMALL SPILL: For a single unwrapped strip no special protective measures are required. Either rehang the strip or dispose of it according to the procedure listed under waste disposal. Be sure to wash thoroughly with soap and water after handling the strip.

LARGE SPILL: Use personal protective equipment (section 8) to prevent contact with the unwrapped strips. Pick up the spilled strips and place them into closed containers. Clean up the area by treating it with dilute ammonia or caustic solution (5% solution). Prevent runoff from getting into local water supplies. Absorb the wash liquid on solid absorbent such as Kitty Litter, and place the waste into a sealed container for disposal.

7. **HANDLING AND STORAGE**

HANDLING: Avoid contact with skin, eyes, or clothing. Wash hands, face and arms before eating or handling food. Store in original unopened container, away from foodstuffs and feed. Avoid areas of extreme heat. Keep away from small children.

STORAGE: Store in original unopened package until ready to use. Keep away from heat and store away from children, foodstuffs, and feed.

8. **EXPOSURE CONTROLS/PERSONAL PROTECTION**

ENGINEERING CONTROLS: General ventilation is sufficient for use of this product. During manufacture of this product sufficient ventilation is required to keep exposures to levels below the TLV.

RESPIRATORY PROTECTION: A properly FIT-TESTED NIOSH/MSHA approved respirator fitted with organic vapor cartridges is required during manufacture of this product if the ventilation is insufficient to keep exposures below the TLV. Under homeowner use conditions no respiratory protection is required.

SKIN PROTECTION: Impervious, usually rubber or nitrile, gloves are required for prolonged or repeated exposures to this product. Production workers should wear long-sleeved shirt and long pants; waterproof gloves; and shoes plus socks. Follow manufacturer's instructions for cleaning/ maintaining personal protection equipment (PPE). If no such instructions are available, use detergent and hot water. Keep and wash PPE separately from other laundry. Do not reuse contaminated clothing until it has been laundered properly. Always wash hands, face and arms with soap and water after using pesticides before smoking, eating, drinking or going to the toilet. Shower after work each day. Homeowners and other users of individual strips should wear gardening gloves or other chemical resistant gloves when handling the strips. Wash thoroughly after handling the strips.

EYE PROTECTION: Eye protection is not needed for ordinary use of this product. Safety glasses with sideshields are required for prolonged or repeated exposures to this product.

9. **PHYSICAL AND CHEMICAL PROPERTIES**

PHYSICAL STATE:	Solid
APPEARANCE:	Yellow or blue plastic strip
ODOR:	Mild chemical odor
ODOR THRESHOLD:	Not available
BOILING POINT:	Not applicable
FREEZING/MELTING POINT:	Not available
SPECIFIC GRAVITY:	1.26 g/cm ³
DENSITY:	68.66 lb/ft ³
VAPOR PRESSURE (mm/Hg):	0.01 (DDVP)

9. **PHYSICAL AND CHEMICAL PROPERTIES, cont'd**

VAPOR DENSITY:	Heavier than air
PERCENT VOLATILE BY VOL:	18.6%
SOLUBILITY IN WATER:	Negligible
SOLUBILITY (Other):	This product is softened in aromatic and chlorinated solvents
PARTITION COEFFICIENT (O/W):	Not applicable
pH:	Not applicable
EVAPORATION RATE:	10 to 100 mg/day of DDVP

10. **STABILITY AND REACTIVITY**

CHEMICAL STABILITY (Conditions to avoid): Stable under normal use and storage conditions.

INCOMPATIBILITY: Strong acids, oxidizers, and strong bases.

HAZARDOUS DECOMPOSITION PRODUCTS: Heating to decomposition will cause emission of acrid smoke and fumes of hydrogen chloride, phosphorous oxides, and carbon oxides.

HAZARDOUS POLYMERIZATION: This product will not polymerize.

11. **TOXICOLOGICAL INFORMATION**

GENERAL: The following information is available for the finished product(*) or for the technical material:

INGESTION:	Oral LD ₅₀ (rat):	679/382 (male/female) mg/kg*
INHALATION:	Inhalation LC ₅₀ (rat):	> 198 mg/m ³ (4 hr, head only, vapor)
DERMAL:	Skin LD ₅₀ (rabbit):	27400 mg/kg (intact abdominal skin)*
IRRITATION:	Eye irritation:	Irritant
	Skin irritation:	Irritant
SENSITIZATION:	Skin sensitization: (guinea pig)	Possible Sensitizer

TERATOGENICITY: No evidence of teratogenicity in laboratory animals exposed to DDVP technical.

MUTAGENICITY: No clear evidence of *in vivo* mutagenicity activity in mammalian assay systems from exposure to DDVP.

CARCINOGENICITY: Two laboratory studies have shown a low incidence of forestomach tumors in the mouse and mononuclear cell leukemia in the F344 rat. EPA under its 1999 proposed Guidelines for Carcinogen Risk Assessment has classified DDVP as having "suggestive evidence of carcinogenicity, but not sufficient to assess human carcinogenic potential." IARC lists DDVP (Dichlorvos) as being possibly carcinogenic to humans (Group 2B). **CARE SHOULD BE EXERCISED IN HANDLING DDVP AND ITS FORMULATIONS.**

11. TOXICOLOGICAL INFORMATION, cont'd

REPRODUCTIVE TOXICITY: Reproductive effects to DDVP have only been seen at a dose level which produced a generalized toxicity in the rat.

TOXICOLOGICALLY SYNERGISTIC PRODUCTS: No data available.

12. ECOLOGICAL INFORMATION

GENERAL: This product may be toxic to fish, birds, and other wildlife when large quantities of strips are involved.

13. DISPOSAL CONSIDERATIONS

GENERAL: As a household waste, the spent strip should be wrapped in paper, placed in a sealed plastic bag, and put into the trash. If large numbers of strips are to be discarded the local authorities or the EPA should be contacted to find out the current regulations.

14. TRANSPORTATION INFORMATION

DOT CLASS:	9
UN NUMBER:	UN3077
IATA CLASS (air):	9
IMDG CLASS (sea):	9
ADR CLASS (road):	9
PACKING GROUP:	III
MARINE POLLUTANT:	Yes
HAZARD LABEL(s):	Class 9
PROPER SHIPPING NAME(s):	Environmentally Hazardous Substances, Solid, N.O.S. (20% Dichlorvos)
REPORTABLE QUANTITY:	Yes

PACKAGING

GENERAL DESCRIPTION Individual foil pouches; Case quantities of pouches packed in fiberboard box.

Note: This product is not regulated when shipped by air or ground in non-bulk packaging. When shipped by vessel or in bulk packaging this product is regulated according to the data shown.

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NUVAN® PROSTRIPS; ALCO® SMALL NO-PEST STRIP
AMVAC LARGE PROSTRIP

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15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: This product is registered under EPA/FIFRA Regulations. It is a violation of Federal Law to use this product in any manner inconsistent with its labeling. Read and follow all label directions. This product is excluded from listing requirements under EPA/TSCA.

EUROPEAN UNION REGULATIONS: This product is subject to all European Union Regulations for the use of pesticides. Read and follow all label directions.

SARA TITLE III DATA

Section 311 & 312 Hazard Categories:

Immediate Health Hazard:	Yes
Delayed Health Hazard:	Yes
Fire Hazard:	No
Reactive Hazard:	No
Sudden Pressure Release Hazard:	No

Section 302 Extremely Hazardous Substances:

DDVP (CAS No. 62-73-7) - TPQ 1000 lbs

Section 313 Toxic Chemicals: DDVP (CAS No. 62-73-7)

CERCLA/EHS Reportable Quantities (RQ): DDVP - 10 lbs; Product - 50 lbs

STATE REGULATIONS:

CALIFORNIA (Proposition 65): This product contains a chemical known to the State of California to cause cancer: DDVP

16. OTHER INFORMATION

MSDS STATUS:

Date This Revision: 25 May, 2011

Date Previous Revision: 19 November, 2010

Person Responsible for Preparation: Gary A. Braden

REASONS FOR REVISION: Additional product names were added to the msds.

DISCLAIMER: This information is provided for the limited guidance to the user. While AMVAC believes that the information is, as of the date hereof, reliable, it is the user's responsibility to determine the suitability of the information for its purposes. The user is advised not to construe the information as absolutely complete since additional information may be necessary or desirable when particular, exceptional, or variable conditions or circumstances exist (like combinations with other materials), or because of applicable regulations. No express or implied warranty of merchantability or fitness for a particular purpose or otherwise is made hereunder with respect to the information or the product to which the information relates.

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16. OTHER INFORMATION, cont'd

ABBREVIATIONS:

ACGIH	-	American Conference of Governmental Industrial Hygienists
CERCLA	-	Comprehensive Environmental Response, Compensation, and Liability Act
EPA	-	Environmental Protection Agency
FIFRA	-	Federal Insecticide, Fungicide, and Rodenticide Act
IARC	-	International Agency for Research on Cancer
NTP	-	National Toxicology Program
OSHA	-	Occupational Safety and Health Administration
SARA	-	Superfund Amendments and Reauthorization Act
TSCA	-	Toxic Substances Control Act

This is the last page of this MSDS. There should be 9 pages.

Transport[®]

Mikron[™]

INSECTICIDE

To control termites and listed household pests indoors and around the exterior perimeter of residential institutional, public, commercial industrial buildings, and non-commercial barns (i.e., non-commercial barns are storage structures not intended for housing livestock other than pets), and food/feed handling establishments.

When used as a termiticide, individuals/firms must be licensed by the state to apply this product. 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.

EPA Reg. No. 8033-109-279 EPA Est. No. 279-NY-1

Active Ingredient:	By Wt.
Acetamiprid	5.00 %
Bifenthrin*	6.00 %
Other Ingredients:	89.00 %
	100.00%

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

This product contains 0.44 lb. acetamiprid and 0.53 lb. bifenthrin active ingredients per gallon.

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

FMC

FMC Corporation
Agricultural Products Group
1735 Market Street
Philadelphia PA 19103

Net Contents: 1 Quart

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 contains 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. All treatments should be based on observed signs and symptoms of distress in the patient. Overexposure to materials other than this product may have occurred.	
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. Causes moderate eye irritation. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove contaminated clothing and wash before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

All pesticide handlers (mixers, loaders and applicators) must wear long-sleeved shirts, long pants, socks, shoes, and chemical-resistant gloves while mixing. 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 U-Turn®), or an in-line injector system, shirt, pants, socks, shoes and waterproof gloves are sufficient. In addition, all pesticide handlers must wear a respiratory protection device 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.

User Safety Recommendations

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

Use 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 using the product as a termiticide and treating adjacent to an existing structure, the applicator must check the area to be treated, as well as 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 cleanup is completed.

Environmental Hazards

This pesticide is extremely toxic to wildlife, 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 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 it to drift to blooming crops if bees are visiting the treatment area.

Physical and Chemical Hazards

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

DIRECTIONS FOR USE

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

This product can also be used to control ants and other household pests outdoors around the exterior perimeter of buildings and structures.

For the following public health pests, do not apply less than the application rates specified on the label: Ants (including Red Imported Fire Ants and Carpenter Ants), Bed Bugs, Bees, Biting Flies, Carpenter Bees, Centipedes, Chiggers, Clover Mites, Cockroaches, Fleas, Flies, Gnats, Ground-nesting (solitary) bees and wasps, Midges, Mosquitoes, Scorpions, Spider Mites, Spiders (including Black Widow and Brown Recluse), Ticks (including Brown Dog Ticks), Wasps

STORAGE AND DISPOSAL

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

Pesticide Storage: Keep out of reach of children and animals. Store in original container only. Store in a cool, dry place and avoid excess heat. Do not store at temperatures below 32°F (0°C). Do not put concentrate or diluted material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills.

To Confine Spill: Dike surrounding area or absorb with sand, cat litter or commercial clay. Place damaged package in a holding container. Identify contents.

Pesticide Disposal: Pesticide wastes are toxic. 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: Non-refillable container. Do not reuse or refill this container. Triple rinse container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a 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. Offer for recycling, if available.

Subterranean Termite Control

Please note that annual inspections are recommended in any termite management program.

The insecticidal dilution must be adequately dispersed in the soil to establish an effective barrier between the wood and the termites in the soil. For effective termite management incorporate the following cultural practices: 1) remove all non-essential wood and cellulose containing materials from around foundation walls, crawl spaces, and porches; 2) Repairing faulty plumbing and/or construction grade to eliminate termite access to moisture. Treat soil around untreated structural wood 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, 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 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 eliminate 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.

DILUTION CHART FOR SUBTERRANEAN TERMITE TREATMENTS

Number of fluid ounces	Gals. of Water	Concentration of Active Ingredient
1.25	1	0.11%
62.5	50	0.11%
125	100	0.11%

Restrictions	Contamination of public and private water supplies must be avoided by following these precautions: 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 (HUD) for guidance.
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.
Application Rate	1.25 ounces per 1 gallon of water. When properly mixed in water, the end use dilution after adding 1.25 ounces of Transport Mikron Insecticide to 1 gallon of water for termites is 0.11% active ingredient.
Mixing Directions	Fill tank 1/4 to 1/3 full with water. Start pump to begin by-pass agitation and place end of treating tool in tank to allow circulation through hose. Add Transport Mikron Insecticide. Add remaining amount of water. Let pump run and allow recirculation through the hose for 2 to 3 minutes. Transport Mikron Insecticide may also be mixed into full tanks of water.
Application Volume	For control of termite infestations, 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. Certain elements of a structure may not need to be treated, such as the drilling and treatment of basement slabs in northern states. Large reductions of application volume reduce the ability to obtain a continuous treated zone. Variance is allowed when volume and concentration are consistent with label directed rates and a continuous treated zone can still be achieved. Where desirable for pre and post construction treatments, the volume of the Transport Mikron Insecticide dilution may be reduced by 1/2 the labeled volume (and doubling the amount of Transport Mikron Insecticide). When volume is reduced, the hole spacing for sub-slab injection and soil rodding may require similar adjustment to account for lower volume dispersal of the termiticide in the soil.
After Treatment	All holes in commonly occupied areas into which Transport Mikron 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 Control	
<p>Effective pre-construction subterranean termite control is achieved by establishment of vertical and horizontal insecticidal barriers using a 0.11% dilution of Transport Mikron Insecticide.</p> <p>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.</p> <p>When treating foundations deeper than 4 feet, apply the Transport Mikron insecticide dilution 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. When trenching, the trench should be about 6 inches wide and 6 inches deep. 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.</p>	
Horizontal Barriers	<p>Create a horizontal barrier wherever treated soil will be covered by a slab, such as slab floors, carports, and the soil beneath basement slabs, stairs, and crawl spaces.</p> <p>Apply 1 gallon of dilution per 10 square feet, to provide thorough and continuous coverage of the area being treated.</p> <p>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.</p> <p>Apply using a low-pressure spray (less than 50 p.s.i.) using a coarse spray nozzle. If the slab will not be poured the same day as treatment, cover treated soil with a waterproof barrier such as polyethylene sheeting. This is not necessary if foundation walls have been installed around the treated soil.</p>
Vertical Barriers	<p>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.</p> <p>Apply 4 gallons of dilution per 10 linear feet per foot of depth from grade to top of footing to ensure complete coverage.</p> <ol style="list-style-type: none"> When trenching and rodding into the trench, or trenching, it is important that the 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 must be taken to avoid soil washout around the footing. Trenches should be about 6 inches wide and 6 inches deep. The dilution must 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. <p>Hollow block voids may be treated at a rate of 2 gallons of dilution per 10 linear feet so that the dilution will reach the top of the footing.</p>
<p>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.</p>	
<p>The treatment site must be covered prior to a rain event in order to prevent runoff 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.</p> <p>Do not treat soil that is water-saturated or frozen. Do not treat when raining. Do not allow treatment to run-off 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).</p> <p>Do not make on-grade applications when sustained wind speeds are above 10 mph (at application site) at nozzle end height.</p>	

Post-Construction Subterranean Termite Control	
<p>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 25p.s.i. at the nozzle. Care must be taken to avoid soil washout around the footing.</p>	
Important	<p>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.</p>
Foundations	<p>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. When trenching, the trench should be about 6 inches wide and 6 inches deep. 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</p>
Slabs	<p>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 to establish a continuous barrier. Treatment must not extend below the bottom of the footing.</p> <p>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.</p> <ol style="list-style-type: none"> Drill holes in the slab and/or foundation to allow for the application of a continuous insecticidal barrier. 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. For foundations deeper than 1 foot follow rates for basement. Exposed soil and wood in bath traps must be treated with the dilution.
Basements	<p>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. Structures must not 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.</p>
Masonry Voids	<p>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 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.</p>
Excavation Technique	<p>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:</p> <ol style="list-style-type: none"> Trench and remove soil to be treated onto heavy plastic sheeting or similar material. 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 sheeting. After the treated soil has absorbed the liquid dilution, replace the soil in the trench.

Accessible Crawl Spaces	<p>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.</p> <ol style="list-style-type: none"> Rod holes and trenches must not extend below the bottom 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. 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. 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	<p>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.</p> <ol style="list-style-type: none"> 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 power spray with higher pressures. 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 that may apply. <p>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.</p> <p>Note: Crawl spaces are to be considered inside of the structure.</p>

FOAM APPLICATIONS FOR TERMITE CONTROL

The Transport Mikron Insecticide dilution may be converted to foam with expansion characteristics from 2 to 40 times for localized control or prevention of termites harboring in walls, under slabs or in other void areas.

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 insure 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.

Use dry foam (15:1 or greater expansion ratio) for applications to wall voids and stud walls.

Use wet foam (10:1 or lower expansion ratio) for applications to soil, including applications to filled porches or voids above soil.

Mixing Table for Transport Mikron Insecticide Foam for Termite Control

Desired Foam Expansion Ratio	Transport Use Dilution for Termite Control	Number of Fluid Ounces	Gallons of Water	Finished Foam (Gallons)
5:1	0.11%	6.25	5.0	25
10:1		3.13	2.5	
15:1		2.08	1.66	
20:1		1.56	1.25	
25:1		1.25	1.0	

Application Under Slabs or to Soil in Crawlspaces to Prevent or Control Termites and other Listed Indoor Household Pests (see Household Pest Control Indoor Section for Complete Pest List)	<p>Application may be made using Transport Mikron Insecticide foam alone or in combination with liquid dilution. The equivalent of at least 4 gallons of dilution per 10 linear feet (vertical barrier), or at least 1 gallon of dilution per 10 square feet (horizontal barrier) must be applied either as dilution, foam, or a combination of both.</p>
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Termite Control

The purpose of the applications described below is 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.

Exposed Workers and Winged Reproductives	<p>To control exposed workers and winged reproductive termites in localized areas, apply 0.11% dilution of Transport Mikron Insecticide as a pinstream, spot, or crack and crevice spray on the outside of buildings, porches, wooden decks and patios, wooden fences around buildings, window frames, doorways, foundations, eaves, patios, garages, and other building where you may find these pests. Spray infested areas until thoroughly wet, avoiding dripping and runoff. Applications may also 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 must be securely plugged after treatment.</p>
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Termite Carton Nests in Building Voids	<p>To control termite carton nests in building voids, apply 0.11% dilution of Transport Mikron Insecticide 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.</p>
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Termite Carton Nests in Trees	<p>Termite carton nests in trees may be injected with a dilution or sufficient volume of foam using a pointed injection tool. Multiple injection points to varying depths may be necessary. In some instances, a perimeter application of the dilution applied to soil around the root flare of the tree may be necessary to prevent re-infestation by termites in the soil. Apply liquid or foam to the voids in the tree to fill the voids.</p>
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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 Transport Mikron Insecticide treated soil. Susceptible cracks and spaces can be filled with builder's or play box sand and the sand treated with Transport Mikron Insecticide. The sand should be treated as soil following the termiticide rate listed on the Transport Mikron Insecticide 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

- 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.
- 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.
- When appropriate (i.e., on the water side of the structure), the treated backfill technique (described in the Excavation Technique section 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.

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:

- 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:
 - Trench and remove soil to be treated onto heavy plastic sheeting or similar material or into a wheelbarrow.
 - Treat the soil at the rate of 4 gallons of dilute dilution per 10 linear feet per foot of depth of the trench, or 1 gallon per 1.0 cubic feet of soil. Mix thoroughly into the soil taking care to contain the liquid and prevent runoff or spillage.
 - After the treated soil has absorbed the dilution, replace the soil into the trench.
- 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.

Application in Conjunction with the Use of Termite Baits

As part of the integrated pest management (IPM) program for termite control, Transport Mikron 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 as a spot treatment or complete barrier treatment. Applications may be made as described in the post-construction treatment section of this label.

Retreatment

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 that 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.

Restrictions

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 cleanup is completed.

When treating behind veneer, care must 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.

Household Pest Control – Outdoor Pinstream, Spot, Crack and Crevice or Perimeter Treatment

Controls	Ants (including Red Imported Fire Ants and Carpenter Ants) (but excluding Pharaoh and Argentine ants), Bees, Beetles* (*Not for use in California), Biting Flies, Boxelder Bugs, Carpenter Bees, Centipedes, Chiggers, Clover Mites, Cockroaches, Crickets, Earwigs, Elm Leaf Beetles, Firebrats, Fleas, Flies, Gnats, Ground-nesting (solitary) bees and wasps, Midges, Millipedes, Mosquitoes, Moths, Pillbugs, Scorpions, Silverfish, Sowbugs, Spider Mites, Spiders (including Black Widow), Springtails, Stink Bugs, Ticks (including Brown Dog Ticks), Wasps.
Where to Apply	Apply as a pinstream, spot, crack and crevice, or perimeter spray on and around outside surfaces of residential and non-residential buildings and structures including, exterior siding, foundations, porches, window frames, eaves, patios, garages, areas adjacent or around private homes, duplexes, townhouses, condominiums, schools, non-commercial barns (i.e., non-commercial barns are storage structures not intended for housing livestock other than pets), house trailers, apartment complexes, carports, garages, storage sheds, and other structures, and other areas where pests congregate or have been seen. While this product is not for use on turf or lawns, adjacent (i.e., perimeter) treatment is permitted as directed by the Perimeter Treatment Application Rate.
Perimeter Treatment Application Rate	As a perimeter treatment, apply as a continual band up to 10 foot wide around the structure and upwards along the foundation to a height of up to 3 feet and around windows, doors, other penetrations and roof eaves, soffits and overhangs. Spot treatments may be applied beyond the 10 ft-wide band around structures in areas where pests congregate or have been seen. Apply Transport Mikron Insecticide in sufficient amount of water (see Dilution Chart) to adequately cover 1,000 square feet. Dilutions may be applied at either high or low volumes. Do not apply more than 1.25 fluid ounces per 1,000 square feet.
Mixing Directions	When using spray rigs, fill tank 1/4 to 1/3 full with water. Start pump to begin by-pass agitation and place end of treating tool in tank to allow circulation through hose. Add Transport Mikron Insecticide. Add remaining amount of water. Let pump run and allow recirculation through the hose for 2 to 3 minutes. For backpacks and handheld sprayers, fill the tank 1/4 full with water. Add Transport Mikron Insecticide. Agitate tank gently before adding remaining water. Close application equipment. For other types of sprayers, Transport Mikron Insecticide may be mixed into full tanks of water. Fill tank with the desired volume of water and add Transport Mikron Insecticide. Close and gently shake before use to ensure proper mixing. Mix only the amount of dilution needed for application.
Repeat 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.
Restrictions	Do not water the treated area to the point of run-off. Do not make applications during rain. All outdoor applications must be limited to spot or crack-and-crevice treatments only, except for the following permitted uses: 1) treatment to soil or vegetation around structures; and, 2) application to building foundations, up to a maximum height of 3 feet. Other than applications to building foundations, all outdoor applications to impervious surfaces such as sidewalks, driveways, patios, porches and structural surfaces (such as windows, doors, and eaves) are limited to spot and crack-and-crevice applications only. 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.

Dilution Chart for Listed Household Pest Perimeter Barrier Applications Around Structures

Application Volume per 1,000 sq. ft.	Transport Mikron Insecticide ounces to add (%a.i.)			
	Total Mix volume			
	1 Gallon	3 Gallons	5 Gallons	10 Gallons
1 gal/1,000 sq. ft	1.25 (0.11%)	3.75 (0.11%)	6.25 (0.11%)	12.5 (0.11%)
2 gal/1,000 sq. ft	0.635 (0.054%)	1.88 (0.054%)	3.13 (0.054%)	6.25 (0.054%)
2.5 gal/1,000 sq. ft	0.5 (0.043%)	1.5 (0.043%)	2.5 (0.043%)	5.0 (0.043%)
3 gal/1,000 sq. ft	0.42 (0.036%)	1.25 (0.036%)	2.1 (0.036%)	4.2 (0.036%)
5 gal/1,000 sq. ft	0.25 (0.022%)	0.75 (0.022%)	1.25 (0.022%)	2.5 (0.022%)

Outdoor Ant Control

Carpenter Ants	Apply Transport Mikron Insecticide as a pinstream, spot, crack and crevice, or perimeter spray 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 Household Pest Control - Outdoor 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: 1) Treat non-porous surfaces with low volume applications. 2) Treat porous surfaces and vegetation with high volume applications. 3) Treat the trunks of trees that have carpenter ant trails or upon which carpenter ants are foraging by applying dilution to thoroughly wet the bark from the base of the tree to as high as possible on the trunk.
Nuisance Ants, Outdoor Ants and Fire Ants	For best results, locate and treat ant nests. Apply Transport Mikron Insecticide as a pinstream, spot, crack and crevice or perimeter treatment 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 Household Pest Control - Outdoor 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: 1) Treat non-porous surfaces with low volume applications. 2) Treat porous surfaces and vegetation with high volume applications.

Specific Outdoor Pest Control Applications

Ant and Fire Ant Mounds	Drench individual mounds with 1-2 gallons of Transport Mikron Insecticide at a 0.11% dilution (see Dilution Chart) to each mound area 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". For best results, apply in cool weather, such as in early morning or late evening hours.
Carpenter ants in trees, utility poles, fencing, deck materials and similar structural members	Drill to locate the interior infested cavity and inject or foam 0.11% dilution (see Foam Applications section) into the cavity using a sufficient volume and an appropriate treatment tool with a splash-back guard.
Wood piles and stored lumber	To protect firewood piles or lumber from carpenter ants (and termites), make up a 0.11% dilution (see Dilution Chart) of Transport Mikron Insecticide and apply as a spot treatment to the soil beneath where the firewood or lumber will be stacked at the rate of one gallon of dilution per 8 square feet. Use a hose-end sprayer or sprinkling can to deliver a coarse drenching spray. Wood can be burned as firewood or used as lumber one month after treatment.
Underground Services	Underground Services such as: wires, cables, utility lines, pipes, conduits, etc. Services may be within structures or located outside of structures. Soil treatment may be made using Transport Mikron Insecticide dilution to prevent attack by Termites and Ants. Apply 2 gallons of 0.11% dilution (see Dilution Chart) per 10 linear feet to the bottom of the trench and allow liquid 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 0.11% dilution of Transport Mikron 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 0.11% dilution into the soil.

Specific Outdoor Pest Control Applications (Continued)

Posts, Poles, and Other Constructions	Create an insecticidal barrier in the soil around wooden constructions such as signs, fences and landscape ornamentation. 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 0.11% dilution (see Dilution Chart) per foot of depth for poles and posts less than six inches in diameter. For larger poles, use 1.5 gallons of 0.11% 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.
Listed Pests Under Slabs	Infestations of Arthropods, such as Ants, Cockroaches and Scorpions under slab areas may be controlled by drilling and injecting or horizontal rodding and then injecting 1 gallon of 0.11% dilution (see Dilution Chart) per 10 square feet or 2 gallons of 0.11% dilution per 10 linear feet.
Listed Pest Control in Crawlspace and Voids	Apply Transport Mikron Insecticide 0.11% dilution (see Dilution Chart) to all surfaces in crawlspace and/or voids to control ants, fleas, roaches, scorpions, or other arthropods. Product may also be applied through insecticidal delivery systems such as piping or flexible tubing mounted under and/or around the structure as a crack and crevice or spot treatment. This treatment is not intended as a substitute for termite control. Treat surfaces to point of runoff. Keep children and pets off surface until dry.

The Transport Mikron Insecticide dilution may be converted to foam with expansion characteristics from 2 to 40 times for localized control or prevention of pests including ants, bees, wasps or other arthropods harboring in walls, under slabs or in other void areas.

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 insure 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.

Use dry foam (15:1 or greater expansion ratio) for applications to wall voids and stud walls.

Use wet foam (10:1 or lower expansion ratio) for applications to soil, including applications to filled porches or voids above soil.

Mixing Table for Transport Mikron Insecticide Foam for Listed Household Pest Control

Desired Foam Expansion Ratio	Transport Mikron Insecticide Use Dilution for Listed Household Pest Control	Gallons of Water	Finished Foam (Gallons)
5:1	0.054% or 0.11%	5.0	25
10:1		2.5	
15:1		1.66	
20:1		1.25	
25:1		1.0	

Household Pest Control - Indoor

Controls	Ants (including Red Imported Fire Ants and Carpenter Ants) (but excluding Pharaoh and Argentine ants), Bed Bugs, Bees, Beetles* (including Carpet Beetles) (*Not for use in California), Boxelder Bugs, Centipedes, Cockroaches, Crickets, Earwigs, Firebrats, Fleas, Flies, Gnats, Midges, Millipedes, Moths, (including Cloth Moths), Pillbugs, Scorpions, Silverfish, Sowbugs, Spiders (including Black Widow and Brown Recluse), Springtails, Stink Bugs, Ticks, Wasps.
Where to Apply	Apply for residual pest control in residential and non-residential buildings and structures. Apply either as a crack and crevice, pinstream, spot, coarse, low-pressure spray (25 p.s.i. or less) or with a paintbrush.
	Apply 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, dishwashers, cabinets, sinks, furnaces, stoves, the underside of shelves, drawers and similar areas and other possible pest harborage sites. Do not use as a space or broadcast spray. Pay particular attention to cracks and crevices. Do not apply as a broadcast spray indoors.

Household Pest Control - Indoor (Continued)

Application Rate	Apply Transport Mikron Insecticide in sufficient amount of water (see Dilution Chart) to adequately to cover 1,000 square feet. Do not apply more than 1.25 fluid ounces per 1,000 square feet. To control Bed Bugs, apply 1.25 fluid ounces per gallon water per 1000 square feet where evidence of bed bugs occurs. For foaming directions, please refer to FOAM APPLICATIONS FOR CONTROL OF LISTED HOUSEHOLD PESTS in the SPECIFIC PEST CONTROL APPLICATIONS section.
Mixing Directions	When using spray rigs, fill tank 1/4 to 1/3 full with water. Start pump to begin by-pass agitation and place end of treating tool in tank to allow circulation through hose. Add Transport Mikron Insecticide. Add remaining amount of water. Let pump run and allow recirculation through the hose for 2 to 3 minutes. For backpacks and handheld sprayers, fill the tank 1/4 full with water. Add Transport Mikron Insecticide. Agitate tank gently before adding remaining water. Close application equipment. For other types of sprayers, Transport Mikron Insecticide may be mixed into full tanks of water. Fill tank with the desired volume of water and add Transport Mikron Insecticide. Close and shake before use to ensure proper mixing. Mix only the amount of dilution needed for application.
Ants (including Carpenter Ants and Nuisance Ants) (but excluding Pharaoh and Argentine ants)	Apply to areas where ants have been observed or are expected to forage. Particular attention must be given to treating entry points into the home or premises such as around doors and windows and other places where ants and ant trails may be found. For added Carpenter Ant control, 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 Transport Mikron Insecticide in combination with baits, apply Transport Mikron Insecticide as instructed above, and use baits in other areas that have not been treated with Transport Mikron Insecticide.
Bed Bugs	To control Bed Bugs, apply 1.25 fluid ounces per gallon water per 1000 square feet where evidence of bed bugs occurs. Thorough application must be made to crack and crevices where evidence of bed bugs occurs. This includes bed frames, box springs, mattresses, inside empty luggage, dressers and clothes closets and carpet edges, high and low wall moldings and wallpaper edges, wall hangings, mirrors, pictures, electrical switch plates, furniture, door frames, bookcases, and window frames. For infested mattresses, remove linens and wash before reuse. Apply to tufts, seams, folds, and edges until moist. Allow to dry before remaking bed. When treating furniture, pay special attention to tufts, folds, seams, and difficult to access areas. On furniture, do not apply to seating areas, arms, or areas where direct skin contact can occur. Do not use this product on bed linens, pillows, or clothes. Remove all clothes and other articles from luggage, dressers, or clothes closets before application. Allow all treated areas to thoroughly dry before use. Not recommended for use as sole protection against bed bugs.
Bees and Wasps	To control Bees, Wasps, Hornets, and Yellow Jackets indoors, apply in the late evening when insects are at rest. Spray liberally into hiding and breeding places, especially under attic rafters, contacting as many insects as possible. Use 1.25 fluid ounces per gallon water per 1000 square feet.
Occasional Invaders	To control Boxelder Bugs, Centipedes, Earwigs, Beetles, Millipedes, Lady Beetles, Pillbugs, and Sowbugs, apply around doors and windows and other places where these pests may be found or where they may enter premises. Spray baseboards, storage areas and other locations.
Crawling and Flying Insect Pests	To control Cockroaches, Crickets, Firebrats, Flies, Gnats, Midges, Moths, Scorpions, Silverfish, and Spiders, apply as a coarse, low pressure spray to areas where these pests hide, such as baseboards, corners, storage areas, closets, around water pipes, doors and windows, attics and eaves, behind and under dishwashers, refrigerators, cabinets, sinks, furnaces, and stoves, the underside of shelves, drawers and similar areas. Pay particular attention to cracks and crevices.
Restrictions	Let surfaces dry before allowing people and pets to contact surfaces. Transport Mikron Insecticide will not stain or damage any surface that water alone will not stain or damage. 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 general surface treatments of Transport Mikron Insecticide. Wear protective clothing; unvented goggles, gloves and a respirator approved by NIOSH, when applying to overhead areas or in poorly ventilated or confined areas. 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.

Specific Indoor Pest Control Applications

Warehouses and Stores	Transport Mikron Insecticide may be applied as a spot or crack and crevice treatment in non-food storage warehouses and stores. Apply no more 1.25 fluid ounces of Transport Mikron Insecticide per 1,000 square feet in sufficient volume to provide adequate coverage. 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.
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Food/Feed Handling Establishment Applications

Controls	Ants (including Red Imported Fire Ants and Carpenter Ants) (but excluding Pharaoh ants and Argentine ants) Bed Bugs, Bees, Beetles* (including Carpet Beetles) (*Not for use in California), Boxelder Bugs, Centipedes, Cockroaches, Crickets, Earwigs, Firebrats, Fleas, Flies, Gnats, Midges, Millipedes, Moths, (including Cloth Moths), Pillbugs, Scorpions, Silverfish, Sowbugs, Spiders (including Black Widow and Brown Recluse), Springtails, Stink Bugs, Ticks, Wasps
Where to Apply	Applications of this product are permitted in both food/feed and non-food areas of food/feed establishments as a spot or crack and crevice treatment. Food/feed handling establishments are defined as places other than private residences in which exposed food/feed is held, processed, prepared or served. Including also are areas for receiving, storing, packaging (canning, bottling, wrapping, boxing), preparing, edible waste storage and enclosed processing systems (mills, edible oils, syrups) or food. Service 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: aircraft (do not use in aircraft cabins), apartment buildings, 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, grocery stores (do not apply directly to the interior of food grain bins) hospitals, hotels, industrial buildings, laboratories, meat/poultry/egg processing plants, mobile/motor homes, nursing homes, offices, pet stores (do not apply directly to the interior of food grain bins or animals), railcars, restaurants, schools, ships, trailers, trucks, vessels, warehouses and wineries.
Application Rate	Apply Transport Mikron Insecticide in a sufficient amount of water (see Dilution Chart) to adequately cover 1,000 square feet. Do not apply more than 1.25 ounces of Transport Mikron Insecticide per 1,000 square feet.
Spot, Crack and Crevice Application	Spot or crack and crevice applications may be made while the facility is in operation; however, cover or remove food from area being treated. Do not apply directly to food.
Mixing Directions	When using spray rigs, fill tank ¼ to 1/3 full with water. Start pump to begin by-pass agitation and place end of treating tool in tank to allow circulation through hose. Add Transport Mikron Insecticide. Add remaining amount of water. Let pump run and allow recirculation through the hose for 2 to 3 minutes. For backpacks and handheld sprayers, fill the tank ¼ full with water. Add Transport Mikron Insecticide. Agitate tank gently before adding remaining water. Close application equipment. For other types of sprayers, Transport Mikron Insecticide may be mixed into full tanks of water. Fill tank with the desired volume of water and add Transport Mikron Insecticide. Close and shake before use to ensure proper mixing. Mix only the amount of dilution needed for application.
Foam Applications	For foaming directions, please refer to FOAM APPLICATIONS FOR CONTROL OF LISTED HOUSEHOLD PESTS in the SPECIFIC PEST CONTROL APPLICATIONS section.

RESTRICTIONS

Do not apply as a perimeter treatment to areas beyond 10 feet from the foundation of the structure unless using a spot treatment.

Do not use as a space or broadcast spray .

Do not use in and around the exterior perimeter of commercial barns, stables, and paddocks. Do not use in grazing areas, feed lots or other similar areas used for housing, boarding, and/or rearing animals This product may be used around barns and stables on residential property.

Do not apply by air.

Do not apply as a broadcast spray indoors or as a broadcast spray on lawns and turf.

Do not apply in greenhouses or nurseries.

Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes.

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 apply to pets, crops, or sources of electricity.

Do not treat electrically active underground services.

Do not treat areas when food is exposed. Cover or remove food from area being treated. Do not allow spray to contact food, foodstuffs, food contacting surfaces, food utensils or water supplies.

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 consistent with applicable law, FMC or seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, 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.

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Transport - Trademark of Nippon Soda Co., Ltd

SAFETY DATA SHEET
TRANSPORT® MIKRON INSECTICIDE

SDS # : 6549-A
Revision date: 2015-04-13
Format: NA
Version 1.01



1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name TRANSPORT® MIKRON INSECTICIDE

Other means of identification

Product Code(s) 6549-A

Synonyms BIFENTHRIN: (2-methyl[1,1'-biphenyl]-3-yl)methyl
3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate (CAS name);
2-methylbiphenyl-3-ylmethyl
(Z)-(1RS)-cis-3-(2-chloro-3,3,3-trifluoroprop-1-enyl)-2,2-dimethylcyclopropanecarboxylate
(IUPAC name) ACETAMIPRID:
(E)-1-(6-chloro-3-pyridylmethyl)-N-nitroimidazolidin-2-ylideneamine;(2E)-1-[(6-chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine

Active Ingredient(s) Bifenthrin, Acetamiprid

Chemical Family Pyrethroid Pesticide, Neonicotinoid

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
1735 Market Street
Philadelphia, PA 19103
(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
Carcinogenicity	Category 2
Specific target organ toxicity (single exposure)	Category 1
Specific target organ toxicity (repeated exposure)	Category 1

GHS Label elements, including precautionary statements

EMERGENCY OVERVIEW

Danger

Hazard Statements
 H302 - Harmful if swallowed
 H332 - Harmful if inhaled
 H351 - Suspected of causing cancer
 H370 - Causes damage to organs
 H372 - Causes damage to organs through prolonged or repeated exposure



Precautionary Statements - Prevention

- P202 - Do not handle until all safety precautions have been read and understood
- P260 - Do not breathe dust/fume/gas/mist/vapors/spray
- P264 - Wash face, hands and any exposed skin thoroughly after handling
- P270 - Do not eat, drink or smoke when using this product
- P281 - Use personal protective equipment as required

Precautionary Statements - Response

- P321 - Specific treatment (see .? on this label)
- P308 + P311 - IF exposed or concerned: Call a POISON CENTER or doctor
- 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 - Storage

- P405 - Store locked up

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Family Pyrethroid Pesticide, Neonicotinoid.

Chemical name	CAS-No	Weight %
Bifenthrin	82657-04-3	6
Acetamiprid	135410-20-7	5
Propylene Carbonate S	108-32-7	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 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	Call a 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 a poison control center or doctor. Do not 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. 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

Suitable Extinguishing Media	Use CO ₂ , dry chemical, or foam.
Specific Hazards Arising from the Chemical	
Hazardous Combustion Products	Carbon oxides (CO _x), Hydrogen chloride, Hydrogen fluoride, Chlorine, Fluorine.
Explosion data	
Sensitivity to Mechanical Impact	Not sensitive.
Sensitivity to Static Discharge	Not sensitive.
Protective equipment and precautions for firefighters	As in any fire, wear self-contained breathing apparatus and full protective gear.

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.
Other	For further clean-up instructions, call FMC Emergency Hotline number listed in Section 1 "Product and Company Identification" above.
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 Containment	Dike to prevent runoff. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.
Methods for cleaning up	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.

7. HANDLING AND STORAGE

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

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	Liquid
Physical State	Liquid
Color	No information available
Odor	No information available
Odor threshold	No information available
pH	5.51
Melting point/freezing point	Not applicable
Boiling Point/Range	No information available
Flash point	110 °C / 230 °F
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 hay información disponible
Vapor density	1.064 g/mL (8.89 lb/gal)
Density	8.885 lb/gal
Specific gravity	No information available
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	Heat, flames and sparks.
Incompatible materials	Strong oxidizing agents. Strong acids. Strong bases.
Hazardous Decomposition Products	Carbon oxides (COx), Hydrogen chloride, Hydrogen fluoride. Chlorine. Fluorine.

11. TOXICOLOGICAL INFORMATION

Product Information

LD50 Oral	1,035 mg/kg (rat)
LD50 Dermal	> 5,000 mg/kg (rat)
LC50 Inhalation	> 2.2 mg/L 4 hr (rat) - Maximum attainable concentration (zero mortality)
Serious eye damage/eye irritation	Mildly irritating (rabbit).
Skin corrosion/irritation	Non-irritating.
Sensitization	Non-sensitizing.

Information on toxicological effects

Symptoms	Large doses of bifenthrin ingested by laboratory animals produced signs of toxicity including convulsions, tremors and bloody nasal discharge.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic toxicity	Bifenthrin: Long-term exposure caused neurotoxicity (tremors and impaired gait) in the early exposure in animal studies, but tremors disappeared with continued exposure. Acetamiprid: Prolonged exposure in animal studies caused nonspecific toxicity observed as decreases in body weight and food consumption.
Mutagenicity Carcinogenicity	Bifenthrin, Acetamiprid: Not genotoxic in laboratory studies. Bifenthrin: Weak treatment-related response for liver adenocarcinomas and benign bladder tumors (lesion) in male mice. Acetamiprid: No evidence of carcinogenicity from animal studies.
Neurological effects	Bifenthrin: Causes clinical signs of neurotoxicity (tremors, impaired gait, excessive salivation) following acute or subchronic exposure. Tremors disappeared with continued exposure. Acetamiprid: Caused clinical signs of neurotoxicity (decreased locomotor activity, tremors) in animal studies.
Reproductive toxicity	Bifenthrin: No toxicity to reproduction in animal studies. Acetamiprid: Reductions in pup weight, litter size, viability and weaning indices; delay in sexual maturity endpoints.
Developmental toxicity STOT - single exposure	Bifenthrin, Acetamiprid: Not teratogenic in animal studies. Causes damage to organs. See listed target organs below.

STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure. See listed target organs below.

Target organ effects Bifenthrin: Central Nervous System. Acetamiprid: No specific target organ toxicity; the liver effects were considered an adaptive response to chemicals rather than frank toxicity.

Neurological effects Bifenthrin: Causes clinical signs of neurotoxicity (tremors, impaired gait, excessive salivation) following acute or subchronic exposure. Tremors disappeared with continued exposure. Acetamiprid: Caused clinical signs of neurotoxicity (decreased locomotor activity, tremors) in animal studies.

Aspiration hazard No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Bifenthrin (82657-04-3)

Active Ingredient(s)	Duration	Species	Value	Units
Bifenthrin	96 h LC50	Fish	0.1	µg/L
	72 h EC50	Algae	0.822	mg/L
	48 h EC50	Crustacea	0.11	µg/L
	21 d NOEC	Fish	0.012	µg/L
	21 d NOEC	Crustacea	0.0013	µg/L

Acetamiprid (135410-20-7)

Active Ingredient(s)	Duration	Species	Value	Units
Acetamiprid	72 h EC50	Algae	>98.3	mg/L
	96 h LC50	Fish	>100	mg/L
	48 h LC50	Crustacea	49.8	mg/L
	21 d NOEC	Fish	19.2	mg/L
	21 d NOEC	Crustacea	5	mg/L

Persistence and degradability Bifenthrin: Moderately persistent. Does not readily hydrolyze. Not readily biodegradable. Acetamiprid: Non-persistent. Does not readily hydrolyze. Not readily biodegradable.

Bioaccumulation Bifenthrin: The substance has a potential for bioconcentration. Acetamiprid: The substance does not have a potential for bioconcentration.

Mobility Bifenthrin: Immobile. Not expected to reach groundwater. Acetamiprid: Moderately mobile. Has some potential 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 This material is not a hazardous material as defined by U.S. Department of Transportation at 49 CFR Parts 100 through 185.

TDG Classification below is only applicable when shipped by vessel and is not applicable when shipped by road or rail only.

UN/ID no UN3082
Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s.

TRANSPORT® MIKRON INSECTICIDE

SDS # : 6549-A
Revision date: 2015-04-13
Version 1.01

Hazard class 9
Packing Group III
Marine Pollutant Description Bifenthrin.
UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bifenthrin), 9, PGIII, Marine Pollutant

ICAO/IATA

UN/ID no UN3082
Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s.
Hazard class 9
Packing Group III
Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bifenthrin), 9, PGIII, Marine Pollutant

IMDG/IMO

UN/ID no UN3082
Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s.
Hazard class 9
Packing Group III
EmS No. F-A, S-F
Marine Pollutant Description Bifenthrin
UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bifenthrin), 9, PGIII, 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	82657-04-3	6	1.0

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 does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

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

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. Causes moderate eye irritation.
This pesticide is extremely toxic to wildlife, fish, and aquatic invertebrates.*

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Bifenthrin 82657-04-3	X		

International Inventories

Component	TSCA (United States)	DSL (Canada)	EINECS/ELI NCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Bifenthrin 82657-04-3 (6)				X	X	X		
Acetamiprid 135410-20-7 (5)					X	X		
Propylene Carbonate S 108-32-7 (5-15)	X	X	X	X	X	X	X	X

Mexico - Grade

Moderate risk, Grade 2

WHMIS Hazard Class

D2A - Very 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:

2015-04-13

Revision note

(M)SDS sections updated

Disclaimer

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Prepared By:

FMC Corporation

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End of Safety Data Sheet



Zenprox® EC

- INTENDED FOR USE BY PEST MANAGEMENT PROFESSIONALS
- FOR USE INDOORS IN NON-FOOD/NON-FEED AREAS OF RESIDENTIAL AND COMMERCIAL FACILITIES
- BROAD SPECTRUM PEST CONTROL INCLUDING FLEAS AND BED BUGS
- KILLS NEWLY HATCHED BED BUG NYMPHS
- AIDS IN PREVENTING BED BUG EGG HATCH

SPECIMEN LABEL

ACTIVE INGREDIENTS:

Etofenprox (CAS #80844-07-1)16.2%

Piperonyl butoxide* (CAS #51-03-6)64.8%

OTHER INGREDIENTS:19.0%

Total 100.0%

* (Butyl carbityl)(6-propylpiperonyl) ether and related compounds

This formulation contains 1.4 lbs of etofenprox and 5.6 lbs of piperonyl butoxide per gallon. End use dilution is 0.25% etofenprox.

EPA Reg No.2724-804

EPA Est. No. 2724-TX-1

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE ADDITIONAL PRECAUTIONARY STATEMENTS

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS – CAUTION

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Repeated exposure to etofenprox can cause skin irritation.

FIRST AID

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

If swallowed

- Call a 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. *(continued on next column)*

	<ul style="list-style-type: none"> • Do not give anything by mouth to an unconscious person.
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.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.	

DIRECTIONS FOR USE

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

General Directions: ZENPROX® EC provides effective kill of fleas, cockroaches and other listed pests and can be applied as an indoor broadcast, spot, or crack and crevice treatment in homes, apartment buildings, hotels, schools, day cares, nursing homes, hospitals, office buildings, correctional facilities, commercial and industrial buildings, warehouses, non-food/non-feed handling establishments, modes of transportation, institutions.

Remove pets and birds and cover fish aquariums before spraying. Do not allow children or pets to contact treated surfaces until spray has dried. Do not apply to toys or stuffed animals or related articles. Do not apply this product in occupied patient rooms or in any rooms/areas while occupied by patients, the elderly, or infirm. Do not apply to classrooms while in use. Do not apply in institutions (including libraries, sports facilities, etc.) in the immediate area where occupants are present.

MIXING DIRECTIONS

ZENPROX® EC mixes easily with water (diluent) and may be applied with most application equipment. For best results, partially fill sprayer with water (diluent), add the labeled amount of **ZENPROX® EC** and fill to the required amount of water (diluent). Diluted spray mixture may be stored overnight and used the following day, but mixture should be agitated well prior to use.

ZENPROX® EC in recommended dilutions is generally non-staining and should not stain surfaces that cannot be spotted or damaged by water alone, however in questionable or sensitive surfaces, apply a small amount of dilution in an inconspicuous location to evaluate. Do not apply where electrical short circuits might result. Do not enter or allow others to enter until spray has dried. Do not apply product in a way that will contact workers, other persons, or animals, either directly or through drift.

TANK-MIXING

ZENPROX® EC can be mixed with EPA-registered insect growth regulators in areas where these products are registered to be applied. Please check product-specific label directions before using and the more stringent label directions will apply.

SPECIFIC INSTRUCTIONS:

Indoor Pests			
Use ZENPROX® EC as a broadcast (general surface), spot, or crack and crevice treatment to control pests inside buildings, structures, and modes of transport. This includes homes, apartment buildings, hotels, schools, day cares, nursing homes, hospitals, office buildings, correctional facilities, commercial and industrial buildings, warehouses, non-food/non-feed handling establishments, rail cars, marine vessels, and institutions.			
Treatment	Specific Directions	Use Rate	Pests
Broadcast (General Surface)	Use a coarse, low pressure fan spray to apply the dilution uniformly over surfaces to be treated. Apply to carpets, floors, cabinets, cove base, and other areas where pests are located.	0.25% Etofenprox 2 fl oz/gallon of water (diluent)/1000 ft ²	Ants, Bed Bugs, Carpet beetles, Cockroaches, Confused flour beetles, Centipedes, Crickets, Darkling beetles, Dermestids, Earwigs, Firebrats, Flies, Fleas, Fruit flies, Gnats, Indian meal moths, Lesser grain borers, Millipedes, Mosquitoes, Moths, Pillbugs, Red flour beetles, Sawtoothed grain beetles, Scorpions, Silverfish, Sowbugs, Spiders (Brown recluse, Black widow, others), Stink Bugs, Ticks, Wasps
Spot or Crack and Crevice	Use a coarse, low pressure spray or pin stream. Treat entry points such as around water pipes, doors, windows, and eaves. Treat areas where pests normally feed or hide such as baseboards, corners, around water pipes, cracks and crevices. Spot treat floor rugs, beneath furniture, in closets, and storage areas.	0.25% Etofenprox 2 fl oz/gallon of water (diluent)/1000 ft ²	
Spot or Crack and Crevice for Bed Bugs Infesting Beds, Mattresses, Bedrooms and Sleeping Areas	Disassemble the bed frame and remove bedding. Do not apply product to bedding. Wash bedding and dry using medium to high heat to kill bed bugs. Use a coarse, low-pressure spray to apply to the bed frame, mattress and box spring. Application to mattresses and box springs is intended for treatment of seams, edges, and tufts only. Do not saturate the mattress and box spring. Do not treat the entire surface of the mattress or box spring. Allow spray to dry before using the mattress and/or box spring. Spot treat baseboards, behind pictures/wall hangings, rugs, and other articles in the bedroom or sleeping area.	0.25% Etofenprox 2 fl oz/gallon of water (diluent)/1000 ft ²	Bed Bugs

Repeat treatments to infested areas as necessary, but not less than 14 days after the initial treatment.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool, dry, and ventilated area away from humans, pets, foodstuffs, and feed. Do not store near heat or open flame. Keep from freezing.

Pesticide Disposal: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

Container Handling: Nonrefillable container. Do not reuse or refill this container. Triple rinse as follows. Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a 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 puncture and dispose of in a sanitary landfill, or incinerate, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

To the extent consistent with applicable law, Seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. To the extent consistent with applicable law, Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

For information or in case of emergency call 1-800-248-7763.

www.zoecon.com

Wellmark International
1501 East Woodfield Road 200W
Schaumburg, Illinois 60173



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April, 2013
Schaumburg, IL

Wellmark[®]

Safety Data Sheet

Section 1: Identification

Product identifier

- Product Name** • **Zoecon Zenprox EC**
- Synonyms** • 100506231; EPA Reg. No.: 2724-804; RF2129EC
- Product Description** • Straw-colored liquid.

Relevant identified uses of the substance or mixture and uses advised against

- Recommended use** • Insecticide.
- Restrictions on use** • Avoid contact with skin and eyes. Keep out of reach of children and pets. Do not take internally.

Details of the supplier of the safety data sheet

- Manufacturer** • Wellmark International
1501 E. Woodfield Road 200W
Schaumburg, IL 60173
United States
- www.zoecon.com

Emergency telephone number

- Manufacturer** • 1-800-248-7763
- Manufacturer (Transportation)** • 1-800-424-9300 - CHEMTREC
- Manufacturer (Transportation)** • 1-703-527-3887 - CHEMTREC Outside US Collect Calls accepted

Section 2: Hazard Identification

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

- OSHA HCS 2012** • Skin Irritation 2
Eye Mild Irritation 2B
Acute Toxicity Oral 4

Label elements

OSHA HCS 2012

WARNING



- Hazard statements** • Harmful if swallowed
 Causes skin irritation
 Causes eye irritation

Precautionary statements

- Prevention** • Wash thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Wear protective gloves.
- Response** • IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician if you feel unwell.
 Rinse mouth.
 IF ON SKIN: Wash with plenty of soap and water.
 If skin irritation occurs: Get medical advice/attention.
 Take off contaminated clothing and wash before reuse.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 If eye irritation persists: Get medical advice/attention.

- Storage/Disposal** • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Other hazards

- OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Section 3 - Composition/Information on Ingredients

Substances

- Material does not meet the criteria of a substance.

Mixtures

Composition		
Chemical Name	Identifiers	%
Etofenprox	CAS:80844-07-1	16.2%
Piperonyl butoxide	CAS:51-03-6	64.8%
2-Ethylhexanol	CAS:104-76-7	2.31% TO 2.97%
Other ingredients	NDA	> 16%

Section 4: First-Aid Measures

Description of first aid measures

- Inhalation** • IF INHALED: If breathing is difficult, remove person to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms persist.
- Skin** • IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.
- Eye** • IF IN EYES: Rinse with water for several minutes. Get medical attention if symptoms occur.
- Ingestion** • IF SWALLOWED: Do not induce vomiting unless told to by a poison control center or doctor. Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms and effects, both acute and delayed

- Causes skin irritation. Causes eye irritation. Harmful if swallowed. Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

- Notes to Physician
- Treat symptomatically and supportively.

Section 5: Fire-Fighting Measures

Extinguishing media

- Suitable Extinguishing Media**
- Use water fog, foam, carbon dioxide, or dry chemical.

- Unsuitable Extinguishing Media**
- Avoid heavy hose streams.

Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
- No data available.

- Hazardous Combustion Products**
- Thermal decomposition may release toxic fumes which may include carbon dioxide and carbon monoxide.

Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA).

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

- Personal Precautions**
- Use appropriate Personal Protective Equipment (PPE). Ventilate enclosed areas. Avoid contact with skin and eyes.

- Emergency Procedures**
- Ventilate closed spaces before entering. Avoid release into the environment.

Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

- Containment/Clean-up Measures**
- Stop leak if you can do it without risk.
SMALL SPILLS: Take up with sand or other non-combustible absorbent material and place into containers for later disposal.
LARGE SPILLS: Dike far ahead of spill for later disposal.

Section 7 - Handling and Storage

Precautions for safe handling

- Handling**
- Use good safety and industrial hygiene practices. Avoid contact with skin or eyes.

Conditions for safe storage, including any incompatibilities

- Storage**
- Keep this product in its tightly closed original container, when not in use. Store in a cool, dry area that is inaccessible to children and pets. Protect from freezing or high temperatures.

Section 8 - Exposure Controls/Personal Protection

Control parameters

Exposure controls

- Engineering**
- Use adequate ventilation to remove vapors (fumes, dust etc)

Measures/Controls**Personal Protective Equipment****Pictograms****Respiratory**

- In case of insufficient ventilation, use NIOSH approved respiratory protection.

Eye/Face

- Wear chemical splash safety goggles.

Hands

- Wear protective gloves.

Skin/Body

- It is recommended for handlers to wear appropriate clothing to prevent skin contact including long sleeves, long pants, socks and shoes.

Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

Section 9 - Physical and Chemical Properties**Information on Physical and Chemical Properties**

Material Description			
Physical Form	Liquid	Appearance/Description	Straw-colored liquid.
Color	Straw colored.	Odor	Faint petroleum.
Odor Threshold	No data available		
General Properties			
Boiling Point	No data available	Melting Point/Freezing Point	No data available
Decomposition Temperature	No data available	pH	5.09 @ 25 C(77 F)
Specific Gravity/Relative Density	= 1.03 @ 20 C(68 F) Water=1	Water Solubility	Emulsifies
Viscosity	< 100 Centipoise (cPs, cP) or mPas @ 20 C(68 F)		
Volatility			
Vapor Pressure	No data available	Vapor Density	No data available
Evaporation Rate	No data available		
Flammability			
Flash Point	112 C(233.6 F) PMCC (Pensky-Martins Closed Cup)	UEL	No data available
LEL	No data available	Autoignition	No data available
Flammability (solid, gas)	Not Flammable.		
Environmental			
Octanol/Water Partition coefficient	No data available		

Section 10: Stability and Reactivity**Reactivity**

- No dangerous reaction known under conditions of normal use.

Chemical stability

- Stable under normal temperatures and pressures.

Possibility of hazardous reactions

- Hazardous polymerization will not occur.

Conditions to avoid

- Excessive heat and freezing conditions. Keep from direct sunlight.

Incompatible materials

- Strong oxidizing agents.

Hazardous decomposition products

- Thermal decomposition may produce toxic gases including carbon dioxide and carbon monoxide.

Section 11 - Toxicological Information**Information on toxicological effects**

	CAS	
Zoecon Zenprox EC	NDA	Acute Toxicity: Ingestion/Oral-Rat LD50 • 1750 mg/kg; Inhalation-Rat LC50 • >2.07 mg/L 4 Hour(s); Skin-Rat LD50 • >5000 mg/kg; Irritation: Eye-Rabbit • Moderate irritation; Skin-Rabbit • Mild irritation

GHS Properties	Classification
Respiratory sensitization	OSHA HCS 2012 • Classification criteria not met
Serious eye damage/Irritation	OSHA HCS 2012 • Eye Mild Irritation 2B
Acute toxicity	OSHA HCS 2012 • Acute Toxicity - Oral 4
Aspiration Hazard	OSHA HCS 2012 • Classification criteria not met
Carcinogenicity	OSHA HCS 2012 • Classification criteria not met
Germ Cell Mutagenicity	OSHA HCS 2012 • Classification criteria not met
Skin corrosion/Irritation	OSHA HCS 2012 • Skin Irritation 2
Skin sensitization	OSHA HCS 2012 • Classification criteria not met
STOT-RE	OSHA HCS 2012 • Classification criteria not met
STOT-SE	OSHA HCS 2012 • Classification criteria not met
Toxicity for Reproduction	OSHA HCS 2012 • Classification criteria not met

Route(s) of entry/exposure • Inhalation, Skin, Eye, Ingestion.

Potential Health Effects**Inhalation**

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • No data available.

Skin

- Acute (Immediate)** • Causes skin irritation.
- Chronic (Delayed)** • Prolonged and repeated exposure to Etofenprox can cause skin irritation.

Eye

- Acute (Immediate)** • Causes eye irritation.
- Chronic (Delayed)** • No data available.

Ingestion

- Acute (Immediate)** • Harmful if swallowed.
- Chronic (Delayed)** • No data available.

Mutagenic Effects

- Piperonyl butoxide was not genotoxic in several tests, including the Ames mutagenicity assay, chromosome aberration in Chinese hamster ovary (CHO) cells,

CHO/HGPRT assay with S9 activation and in the unscheduled DNA synthesis (UDS) assay in cultured human liver cells. Etofenprox has been found negative for mutagenicity potential using the Ames test, chromosomal aberration and micronucleus test methods.

Carcinogenic Effects

- Piperonyl butoxide is not classified as carcinogen by NTP, IARC and OSHA. Etofenprox is not classified as carcinogen by NTP, IARC and OSHA.

Reproductive Effects

- Piperonyl butoxide did not produce any birth defects or adverse effects on reproductive parameters (except weight gain) in tests with rats and rabbits. Etofenprox did not produce teratogenic or reproductive effects in laboratory experiments.

Section 12 - Ecological Information

Toxicity

Components		
Etofenprox (16.2%)	80844-07-1	Aquatic Toxicity-Fish: 96 Hour(s) LC50 <i>Sheepshead minnow</i> >0.0165 mg/L 96 Hour(s) LC50 <i>Rainbow Trout</i> 0.0027 mg/L Aquatic Toxicity-Crustacea: 48 Hour(s) LC50 Water Flea <i>Daphnia magna</i> 0.0008 mg/L 96 Hour(s) LC50 <i>Mysid shrimp</i> 0.0000188 mg/L NOEC Water Flea <i>Daphnia magna</i> 0.00017 mg/L
Piperonyl butoxide (64.8%)	51-03-6	Aquatic Toxicity-Fish: 96 Hour(s) LC50 <i>Rainbow Trout</i> 1.9 mg/L [Acute] 96 Hour(s) LC50 <i>Sheepshead minnow</i> 3.94 mg/L [Acute] NOEC <i>Fathead minnow</i> 0.04 mg/L [Chronic] <i>Fathead minnow</i> 0.11 mg/L [Chronic LOEC] Aquatic Toxicity-Crustacea: <i>Daphnia magna</i> 0.047 mg/L [Chronic LOEC] 48 Hour(s) LC50 <i>Daphnia magna</i> 0.51 mg/L [Acute] 48 Hour(s) LC50 <i>Mysid shrimp</i> 0.49 mg/L [Acute] NOEC <i>Daphnia magna</i> 0.03 mg/L [Chronic]

Persistence and degradability

- No data available

Bioaccumulative potential

- No data available.

Mobility in Soil

- No data available

Other adverse effects

- No data available.

Section 13 - Disposal Considerations

Waste treatment methods**Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. Do not empty into drains.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. See product label for disposal instructions.

Section 14 - Transport Information

UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
	Bulk packaging: Environmentally Hazardous			

DOT	UN3082	Substance, Liquid, n.o.s. (Etofenprox, Piperonyl butoxide)	9	III	Marine Pollutant
IMO/IMDG	UN3082	Packaging > 5L: Environmentally Hazardous Substance, Liquid, n.o.s. (Etofenprox, Piperonyl butoxide)	9	III	Marine Pollutant
IATA/ICAO	UN3082	Packaging > 5L: Environmentally Hazardous Substance, Liquid, n.o.s. (Etofenprox, Piperonyl butoxide)	9	III	Acute Aquatic Toxicity

Special precautions for user • None known.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code • No Data Available.

Other information

IMO/IMDG • No data available

IATA/ICAO • No data available

Section 15 - Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • SARA Title III Section 313, Acute

FIFRA – Pesticide Labeling

This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION

Precautionary Statements • KEEP OUT OF THE REACH OF CHILDREN.

Hazards to Humans and Domestic Animals • Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Repeated exposure to etofenprox can cause skin irritation.

First Aid • Call a poison control center or doctor immediately for treatment advice. If swallowed: Call a 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 mouth to an unconscious person. 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.

Inventory

Component	CAS	TSCA
2-Ethylhexanol	104-76-7	Yes
Etofenprox	80844-07-1	No
Piperonyl butoxide	51-03-6	Yes

United States

Environment

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• 2-Ethylhexanol

104-76-7

Not Listed

• Etofenprox	80844-07-1	Not Listed
• Piperonyl butoxide	51-03-6	1.0 % de minimis concentration

Section 16 - Other Information

Revision Date	<ul style="list-style-type: none">• 25/November/2015
Last Revision Date	<ul style="list-style-type: none">• 25/November/2015
Preparation Date	<ul style="list-style-type: none">• 25/November/2015
Disclaimer/Statement of Liability	<ul style="list-style-type: none">• The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE.

Crossfire® Insecticide

Alternate Names:

Crossfire®
Crossfire® Insecticide Bed Bug Concentrate
CROSSFIRE® Bed Bug Concentrate

[] Indicates optional wording.

- *[Kills Bed Bugs and Bed Bug Eggs*
- *Scientifically formulated to kill Pyrethroid-resistant and or Field and or Wild Bed Bug Strains*
- *Kills all bed bug life stages or entire bed bug lifecycle by Contact*
- *Kills and or Controls and or Targets Adult and Nymphs Bed Bug Life Stages*
- *Kills and or Targets all Bed Bug Life Stages: Adults, Nymphs and Eggs*
- *Kills Bed Bugs on surfaces for up to 4 weeks*
- *Reduces and or Prevents pyrethroid-resistant and susceptible Bed Bug egg hatch*
- *Residual Control and or Kill for up to 4 weeks or 30 days or 1 month begins working within minutes of exposure or application*
- *Effective for up to 30 days Post or After Application*
- *Direct contact provides control in only 5 minutes as shown in or by independent testing*
- *Fast or Quick Knockdown and Kill*
- *Patented Technology*
- *Recommended for use by Pest Control Operators or Pest Management Professionals or Commercial Applicators*
- *For use in Residential, Institutional and Commercial Facilities*
- *Approved for direct application on or onto mattresses*
- *Use as part of your existing bed bug control program*
- *Non-staining*
- *No visible residue*
- *Low odor*
- *Non-Repellent*
- *Easy to measure and mix*
- *Unique water-based formula*
- *Unique blend of active ingredients to control and or kill resistant bed bugs]*

ACTIVE INGREDIENTS:

Clothianidin 4.00%
 Metofluthrin 0.10%
 Piperonyl Butoxide* 10.00%

OTHER INGREDIENTS: 85.90%
 100.00%

*(butylcarbityl) (6-propylpiperonyl) ether and related compounds
 Contains 0.3409 lb. of Clothianidin, 0.0085 lb. of metofluthrin and 0.8523 lb. of piperonyl butoxide per gallon of concentrate.

[Crossfire is a trademark of Sumitomo Chemical Co., Ltd.]

KEEP OUT OF REACH OF CHILDREN

See attached booklet [inside label] [back panel] for additional precautionary statements [and directions for use].

PRECAUCION AL CONSUMIDOR: Si usted no lee inglés, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.
(TO THE USER: If you cannot read English, do not use this product until the label has been fully explained to you.)

FIRST AID	
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 eyes. • Call a poison control center for 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.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information on this product (including health concerns, medical emergencies or pesticide incidents), you may call 1-888-740-8712.	

Manufactured by:



8810 Tenth Avenue North
 Minneapolis, MN 55427

EPA Reg. No. 1021-2776

EPA Est. No. 1021-MN-2

Net Contents: 130 fl. Ounces [13 fl. Ounces]

Patent 8,889,721 [Pat. 8,889,721]

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt
- Long pants, and
- Shoes and socks

USER SAFETY REQUIREMENTS

- 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 the product's concentrate. Don't reuse them.

PHYSICAL AND CHEMICAL HAZARDS

Do not apply this product in, on or around electrical equipment due to the possibility of shock hazard.

DIRECTIONS FOR USE

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

READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

SHAKE WELL BEFORE EACH USE

FOR INDOOR USE ONLY

Crossfire is the next generation insecticide which effectively kills Bed Bugs in both residential and commercial buildings and structures. Crossfire patented technology provides residual control for up to four weeks after application and is scientifically formulated to target [pyrethroid, wild and or field] resistant as well as susceptible Bed Bug strains. Crossfire also kills Bed Bug Nymphs and Eggs by contact. This product must be diluted with water and applied according to the mixing instructions [directions] below. Apply crossfire as an indoor crack and crevice, or direct spray application [according to application instructions] in non-food areas including but not limited to: hotels, shelters, modes of transportation, restaurants, schools, nursing homes, warehouses, offices, apartments, motels, kennels, and hospitals. Crossfire is an easy to use water-dilutable concentrate for application with hand-held, backpack or with a paintbrush. This product will not stain water-safe fabrics or surfaces, however care should be taken to test an inconspicuous area for staining prior to use.

TO KILL BED BUGS (Adults, Nymphs and Eggs): For best results, vacuuming surfaces is recommended prior to treatment. Spray bed bugs and eggs directly wherever possible. Apply as a pinstream, coarse spray or low pressure spray for crack and crevice, carpet perimeter, and direct spray applications in and around non-food areas where bed bugs and their eggs may hide or harbor. For example, on and around baseboards, floorboards, millwork, bed frames, headboards, wall hangings, furniture, door and window frames, walls, closets, window treatments, beneath floor coverings, as well as other non-washable items that may come in contact with bed bugs such as luggage, shoes and backpacks. If treating a pet's living environment, spray on and around pet beds, bedding, floors, sleeping areas and furnishings. This product can also be applied with a paintbrush to walls, baseboards, floorboards, behind wall hangings and other similar areas.

MATTRESS APPLICATION: Crossfire can be directly applied to mattress and box springs surfaces. For porous surfaces such as mattresses and carpet perimeter areas, apply until thoroughly damp but not wet. Infested bed linens should not be treated. These should be removed, tightly sealed in a plastic bag, laundered and dried at high temperatures prior to re-use. Vacuuming surfaces prior to treatment is highly recommended. Using pinstream, coarse or low pressure equipment, spray directly to mattress surface paying special attention to seams, folds, tufts and edges as well as bed frames and box springs where bed bugs harbor. Re-make bed with clean linens prior to reuse.

USE RESTRICTIONS

- THIS PRODUCT IS NOT FOR USE ON HUMANS OR ANIMALS
- Do not spray product directly on pets.
- Not for broadcast use.
- Do not use in commercial food/feed processing, preparation, food/feed storage or serving areas.
- In the home, all food/feed processing surfaces and utensils should be covered during treatment, or thoroughly washed before use. Cover or remove exposed food/feed.
- Remove pets, birds and cover fish aquariums before spraying.
- This product will not stain water-safe fabrics and surfaces, however care should be taken to test an inconspicuous area for staining prior to use.
- DO NOT allow adults, children or pets to enter treated area until sprays are dry.
- DO NOT apply to plants or crops.
- DO NOT treat areas when occupants are present.
- DO NOT apply as a space spray.
- DO NOT wet articles to the point of runoff or drip.
- DO NOT use treated articles until spray has dried.

[NOTE TO REVIEWER: THE FOLLOWING ARE MIXING INSTRUCTIONS FOR WHEN THE PRODUCT IS PACKAGED IN A 130 FL. OZ. CONTAINER:]

[MIXING INSTRUCTIONS]

Crossfire is packaged in a 130 fl. oz. container to produce exactly 10 finished gallons (10 doses/treatments). Pour 13 fl. oz. of the 130 fl. oz. container into 115 ounces of water to produce exactly 1 finished gallon to treat 1,000 sq. ft.

Dilution in water Active ingredients	13 fl. oz. per Gallon Final percent concentration of active ingredients
Clothianidin	0.40%
Metofluthrin	0.01%
Piperonyl Butoxide	1%
Total percent concentration of actives	1.42%

Pests	Dilution in water	Application Rate of Mixed Solution	Application Method(s)
Bed Bugs	13 fl. oz./Finished Gallon	1 Gallon/1000 sq. ft.	Apply as a coarse wet spray • Spot Treatment]

[NOTE TO REVIEWER: THE FOLLOWING ARE MIXING INSTRUCTIONS FOR WHEN THE PRODUCT IS PACKAGED IN A 13 FL. OZ. CONTAINER:]

[MIXING INSTRUCTIONS]

Crossfire is conveniently packaged in a single dose 13 fl. oz. container. Pour the entire contents of the 13 fl. oz. container into 115 oz. of water to produce exactly 1 finished gallon to treat 1000 sq. ft.

Dilution in water Active ingredients	13 fl. oz. per Gallon Final percent concentration of active ingredients
Clothianidin	0.40%
Metofluthrin	0.01%
Piperonyl Butoxide	1%
Total percent concentration of actives	1.42%

Pests	Dilution in water	Application Rate of Mixed Solution	Application Method(s)
Bed Bugs	13 fl. oz./Finished Gallon	1 Gallon/1000 sq. ft.	Apply as a coarse wet spray • Spot Treatment]

To prepare the diluted spray, fill the sprayer tank with half the total water to be used, add the crossfire then add the remaining water to the spray tank to achieve the final application volume. Close the spray tank and shake thoroughly to insure proper suspension. For optimal results, solution should be used within 24 hours of being prepared. Spray tank solution should be shaken prior to each use or if application is interrupted. Diluted mixture may be stored overnight.

NOTICE: This product may be tank-mixed with other insecticides. Application must conform to the use directions and precautions of both products. Prior to tank mixing, a small jar compatibility test should be conducted using the proper proportions of each product and water to ensure the physical compatibility of the mixture. Tank mix applications must be made in accordance with the more restrictive of label limitations and precautions. No label application rates may be exceeded. This product cannot be mixed with any product with label prohibitions against such mixing.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store product in its original container. Store in a cool, dry place and avoid excess heat. Keep container tightly closed when not in use. Keep product from freezing. Diluted mixture may be stored overnight.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. In case of spill or leak on floor or paved surfaces, absorb with sawdust or other commercially available absorbing material, sweep up and remove to chemical waste area until proper disposal can be made.

PESTICIDE DISPOSAL AND CONTAINER HANDLING: Non-refillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat the procedure two more times, then offer for recycling, if available, or puncture and dispose of in a sanitary landfill or by other approved State or Local procedures.

DISCLAIMER, RISKS OF USING THIS PRODUCT, LIMITED WARRANTY AND LIMITATION OF LIABILITY

IMPORTANT: Read the entire Label including this Disclaimer, Risks of Using this Product, Limited Warranty, and Limitation of Liability before using this product. If the terms are not acceptable THEN DO NOT USE THE PRODUCT.

RISKS OF USING THIS PRODUCT The Buyer and User (referred to collectively herein as "Buyer") of this product should be aware that there are inherent unintended risks associated with the use of this product which are impossible to eliminate. These risks include, but are not limited to lack of control of the target pests, resistance of the target pest to this product, injury caused by drift. Such risks of non-performance, resistance or other unintended consequences are unavoidable and may result because of such factors as presence of other materials either applied in the tank mix with this product or prior to application of this product, cultural practices or the manner of use or application, (or a combination of such factors) all of which are factors beyond the control of MGK. The Buyer should be aware that these inherent unintended risks may impact the effectiveness of this product. If the Buyer chooses not to accept these risks, THEN THIS PRODUCT SHOULD NOT BE APPLIED. By applying this product Buyer acknowledges and accepts these inherent unintended risks AND TO THE FULLEST EXTENT ALLOWED BY LAW, AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER. MGK shall not be responsible for losses or damages (including, but not limited to incidental, consequential or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. Buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

LIMITED WARRANTY warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the label and subject to the Risks of Using This Product as described above. To the extent consistent with applicable law AND AS SET FORTH ABOVE, MGK MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED. No agent or representative of MGK or Seller is authorized to make or create any other express or implied warranty.

LIMITATION OF LIABILITY To the fullest extent allowed by law, MGK or Seller is not liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. The limitation includes, but is not limited to increased finance charges or altered finance ratings, emotional or mental distress and/or exemplary damages. TO THE FULLEST EXTENT ALLOWED BY LAW, THE EXCLUSIVE REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF MGK OR 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 THIS PRODUCT OR, AT THE ELECTION OF MGK OR SELLER, THE REPLACEMENT OF THE PRODUCT.

PROMPT NOTICE OF CLAIM To the extent consistent with applicable law allowing such requirements MGK must be provided Product Name/Label Number/Page # notice as soon as Buyer has reason to believe it may have a claim, but in no event later than twenty-one days from date of application, so that an immediate inspection of the affected property can be made. To the extent consistent with applicable law if Buyer does not notify MGK of any claims, in such period, it shall be barred from obtaining any remedy.

NO AMENDMENTS MGK and Seller offer this product, and Buyer accepts it, subject to the foregoing Disclaimer, Risks of Using This Product, Limited Warranty and Limitation of Liability, which may not be modified by any oral or written agreement.

[Or alternate text]

[IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following conditions, disclaimer of warranties and limitations of liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of MGK. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MGK MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of MGK is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, MGK disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT MGK'S ELECTION, THE REPLACEMENT OF PRODUCT.]

[Or alternate text]

[Note [Notice]: Seller warrants that this product complies with the specifications expressed in this label. To the extent consistent with applicable law, seller makes no other warranties, and disclaims all other warranties, express or implied, including but not limited to warranties of merchantability and fitness for the intended purpose. To the extent consistent with applicable law, seller's liability or default, breach or failure under this label shall be limited to the amount of the purchase price. To the extent consistent with applicable law, seller shall have no liability for consequential damages.]

[Or alternate text]

[Notice: To the extent consistent with applicable law, buyer assumes all responsibility for safety and use not in accordance with directions.]

[Or alternate text]

[NOTICE TO USER

To the fullest extent permitted by law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with accompanying directions.]

[] Denotes alternate text in addition to any sub-set of the directions for use.



SAFETY DATA SHEET

Issue Date: 01-Aug-2016

Revision Date: 01-Aug-2016

Version: 2

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product Name: Crossfire® Bed Bug Concentrate
EPA Registration Number: 1021-2776

Other means of identification

Part Code: 3071

Recommended use of the chemical and restrictions on use:

Recommended Use: Insecticide.

Details of the supplier of the safety data sheet

Manufacturer Address: McLaughlin Gormley King Company
8810 10th Avenue North
Minneapolis, MN 55427
Telephone Number: (800) 645-6466, or (763) 544-0341
e-Mail Address: mgk-sds@mgk.com

FAX #: (763) 544-6437

Emergency telephone numbers:

24 Hour TRANSPORTATION Emergency: CHEMTREC®: (800) 424-9300
International: (703) 527-3887

24 Hour MEDICAL Emergency: SafetyCall®: (888) 740-8712, or (952) 852-9509

Comments: MGK® Hours of operation are 8:00 a.m. to 4:30 p.m. CST, 14:00 to 22:30 GMT.
For MEDICAL EMERGENCIES or PESTICIDE INCIDENTS, call 24 hours a day to
(888) 740-8712, or (952) 852-9509.

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status:

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Acute toxicity - Inhalation (Dusts/Mists)

Category 4

Label elements

Emergency Overview

WARNING

Hazard statements

- H332 - Harmful if inhaled
- H400 - Very toxic to aquatic life
- H410 - Very toxic to aquatic life with long lasting effects



Appearance: White , cream

Physical state: Liquid

Odor Sweet

Precautionary Statements - Prevention:

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P271 - Use only outdoors or in a well-ventilated area

Precautionary Statements - Response:

P321 - Specific treatment (see Section 4/ First Aid).

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P312 - Call a POISON CENTER or doctor/physician if you feel unwell

Precautionary Statements - Storage:

P405 - Store locked up

P403 + P235 - Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal:

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

Hazards not otherwise classified (HNOC):

Do not use this product in or on electrical equipment due to the possibility of shock hazard.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Metofluthrin	240494-70-6	0.100
Clothianidin	210880-92-5	4.00
Piperonyl Butoxide (PBO)	51-03-6	10.0

*The exact percentage (concentration) of composition has been withheld as a trade secret.

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

4. FIRST AID MEASURES

Aspiration pneumonia hazard: • No information available

Description of first aid measures:

Eye contact:

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.

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.

- Ingestion:** If swallowed, IMMEDIATELY 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 a poison control center or a doctor. Never give anything by mouth to an unconscious person.
- Inhalation:** Remove affected person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
- Self-protection of the First Responder:** Use personal protective equipment as required.
- Note to physicians:** For skin effects, a highly efficient therapeutic agent for Pyrethrin/ Pyrethroid exposure is topical application of tocopherol acetate (Vitamin E).

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media:
Caution: Use of water spray when fighting fire may be inefficient.

Hazardous combustion products: Carbon monoxide, Carbon dioxide (CO2).

Specific hazards arising from the chemical
No information available.

Explosion data
Sensitivity to Mechanical Impact: None.
Sensitivity to Static Discharge: None.

Protective equipment and precautions for firefighters:
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

<u>NFPA</u>	Health hazards 2	Flammability 1	Instability 0	Physical and Chemical Properties -
<u>HMIS</u>	Health hazards 1	Flammability 1	Physical hazards 0	Personal protection X

Chronic Hazard Star Legend * = Chronic Health Hazard

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- Personal precautions:** Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
- Environmental precautions:** Prevent further leakage or spillage if safe to do so. Do not allow into any sewer, on the ground or into any body of water. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment: Prevent further leakage or spillage if safe to do so.

Methods for cleaning up: Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling: Use personal protective equipment as required. Ensure adequate ventilation, especially in confined areas. Use with local exhaust ventilation. Do not breathe dust/fume/gas/mist/vapors/spray. For more information, see product label.

Conditions for safe storage, including any incompatibilities

Storage Conditions: Keep container tightly closed in a dry and well-ventilated place. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. For more information, see product label.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Control parameters

Exposure Guidelines: This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering Controls: Safety showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection: Protective eyewear is recommended, but is not required.

Skin and body protection: Wear protective gloves and protective clothing.

Respiratory protection: If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations: When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Physical state: Liquid
Appearance: White , cream
Odor Sweet
Odor threshold: No information available
Color (Gardner Scale): No information available

<u>Property:</u>	<u>Values:</u>	<u>Comment: • Method</u>
pH:	4.90	@ 5% in H ₂ O.
Melting point / freezing point:	No information available	
Boiling point / boiling range:	No information available	
Flash point:	> 93.3 °C / > 200.0 °F	Tag Closed Cup
Evaporation rate:	No information available	
Flammability (solid, gas):	No information available	
Upper flammability limit (UEL):	No information available	
Lower flammability limit (LEL):	No information available	
Vapor pressure:	No information available	
Vapor density:	No information available	
Specific Gravity:	No information available	
Water solubility:	No information available	
Partition coefficient; n-Octanol/ Water:	No information available	
Autoignition temperature:	No information available	
Decomposition temperature:	No information available	
Kinematic viscosity:	No information available	
Dynamic viscosity:	29.5 cPs @ 20°C, 22.0 cPs @ 40°C	
Refractive Index:	No information available	

Other Information:

Density: 1.0281 g/cm³ @ 22.5 °C
VOC Content (%): 0.29

Miscibility/ Solubility:

Water: Miscible
Alcohol: Miscible
Aromatic solvents: Partially miscible
Petroleum distillates: Immiscible

10. STABILITY AND REACTIVITY**Reactivity**

No data available

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

Extremes of temperature and direct sunlight.

Incompatible materials:

Incompatible with strong acids and bases. Incompatible with oxidizing agents.

Hazardous Decomposition Products

Carbon monoxide, Carbon dioxide (CO₂).

11. TOXICOLOGICAL INFORMATION

Numerical measures of toxicity - Product Information

Oral LD ₅₀	>5,000 mg/kg (rat)
Dermal LD ₅₀	>5,000 mg/kg (rabbit)
Inhalation LC ₅₀	>2.15 mg/L, (rat; 4 hours)
Eye contact:	Non-irritating to eyes. (rabbit).
Skin Contact:	Non-irritating to the skin. (rabbit).
Sensitization:	Non-sensitizer. (guinea pig).

Piperonyl Butoxide: Marginally higher incidences of benign liver tumors in mice were observed following lifetime high dose exposures to PBO. The significance of these observations is questionable and under review. The doses at which tumors were observed for PBO greatly exceeded potential human exposure from labeled uses. Doses at which these effects were observed greatly exceeded anticipated human dietary intake. At anticipated dietary exposure levels, it is highly unlikely that this product will result in carcinogenic effects.

Carcinogenicity This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Reproductive toxicity:	No information available.
Developmental Toxicity	No information available.
Teratogenicity:	No information available.
STOT - single exposure:	No information available.
STOT - repeated exposure:	No information available.
Chronic toxicity:	Avoid repeated exposure.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects: No information available

Environmental hazards (EPA):

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes: Disposal should be in accordance with applicable regional, national and local laws and regulations. For more information, see product label.

Contaminated packaging: For more information, see product label.

14. TRANSPORT INFORMATION

DOT (Department of Transportation)

Proper Shipping Name: Insecticides, Insect or Animal Repellent, Liquid
Hazard Class: This material is not hazardous.

Other Shipping Information: This material is **not** regulated by the DOT as a hazardous material when shipped in Non-Bulk quantities (*i.e.*, less-than 119 Gallons / 450 Liters).

When shipping in Bulk-quantities (*i.e.*, more than 119 Gallons / 450 Liters), please contact MGK® for the proper shipping description.

Air (IATA/ ICAO)

Proper Shipping Name: Insecticides, Insect or Animal Repellent, Liquid
Hazard Class: This material is not hazardous.

Vessel (IMO/ IMDG) Not available

15. REGULATORY INFORMATION

US 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	SARA 313 - Threshold Values %
Piperonyl Butoxide (PBO) - 51-03-6	1.0

SARA 311/312 Hazard

Categories

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

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

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

US State Regulations:

California Proposition 65:

This product does not contain any Proposition 65 chemicals

U.S. EPA Label Information:

EPA Registration Number: 1021-2776

Difference between SDS and EPA (FIFRA) Pesticide label:

This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The pesticide label also includes other important information, including directions for use. The hazard information required on the pesticide label is reproduced below:

International:

TSCA	Does not comply
DSL/NDSL	Does not comply
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Does not comply
KECL	Does not comply
PICCS	Does not comply
AICS	Does not comply

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION.

Issue Date:	Revision Date:	Revision Note:
01-Aug-2016	01-Aug-2016	- SDS sections updated
		- 2
		- 8
		- 9
		- 11

SDS Prepared By:

e-Mail Address:

Troy Azzivitto, MGK® Chemistry Department.

mgk-sds@mgk.com

Disclaimer:

The data contained herein are based on information currently available to McLaughlin Gormley King Company and, to the best of our knowledge, are accurate and based on sound expert opinion. Our statements herein, however, are not to be taken as a warranty or representation for which McLaughlin Gormley King Company assumes legal responsibility.

End of Safety Data Sheet.