



**CLARKE**

# ANVIL® 10+ 10 ULV

Contains An Oil Soluble Synergized Synthetic Pyrethroid For Control of Adult Mosquitoes (Including Organophosphate-Resistant Species) In Outdoor Residential and Recreational Areas.

## Precautionary Statements HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful if absorbed through the skin. Avoid contact with skin, eyes or clothing. In case of contact, flush with plenty of water. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

## ENVIRONMENTAL HAZARDS

This product is toxic to fish. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish. Do not apply over permanent bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material beyond the body of water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or wash waters.

This product is toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply to blooming crops or weeds when bees are actively visiting the treatment area, except when applications are made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

## PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

## DIRECTIONS FOR USE

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

For use only by federal, state, tribal or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision.

E.P.A. EST. No. 1021-MN-2  
EPA Reg. No. 1021-1688-8329  
**NET CONTENTS**

**LOT NO.**

### ACTIVE INGREDIENTS:

3-Phenoxybenzyl-(1RS, 3RS: 1RS, 3SR)-2,2-dimethyl-3-(2-methylprop-1-enyl) cyclopropanecarboxylate ..	10.00%
* Piperonyl Butoxide, Technical .....	10.00%
** OTHER INGREDIENTS .....	80.00%
	100.00%

\* Equivalent to 8.00% (butylcarbityl) (6-propylpiperonyl) ether and 2.00% related compounds

\*\* Contains a petroleum distillate

Contains 0.74 pounds of Technical SUMITHRIN®/Gallon and 0.74 pounds Technical Piperonyl Butoxide/Gallon

SUMITHRIN®- Registered trademark of Sumitomo Chemical Company, Ltd.

**KEEP OUT OF REACH  
OF CHILDREN  
CAUTION LABEL**

PRECAUCIONAL USUARIO: Si usted no lee inglés, no use este producto hasta que la etiqueta haya sido explicada ampliamente.

### FIRST AID

**IF SWALLOWED** • Immediately call a poison control center or doctor. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person

**IF ON SKIN OR CLOTHING:** • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.

**NOTE TO PHYSICIAN:** Contains a petroleum distillate - vomiting may cause aspiration pneumonia.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information regarding medical emergencies or pesticide incidents, call the International Poison Center at 1-888-740-8712.

MANUFACTURED FOR  
**CLARKE MOSQUITO CONTROL  
PRODUCTS, INC.**

159 N. GARDEN AVENUE • ROSELLE, ILLINOIS 60172

NOTICE: Seller makes no warranty, expressed or implied concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and/or handling of this material when use and/or handling is contrary to label instructions.

Before making the first application in a season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if other requirements exist.

**IN CALIFORNIA:** This product is to be applied by County Health Department, State Department of Health Services, Mosquito and Vector Control or Mosquito Abatement District personnel only.

**USE AREAS:** For use in mosquito adulticiding programs involving outdoor residential and recreational areas where adult mosquitoes are present in annoying numbers in vegetation surrounding parks, woodlands, swamps, marshes, overgrown areas and golf courses.

For best results, apply when mosquitoes are most active and weather conditions are conducive to keeping the fog close to the ground, i.e. cool temperatures and wind speed not greater than 10 mph.

Do not treat a site with more than 0.0036 pounds of Sumithrin® per acre in a 24-hour period. Do not exceed 1.0 pounds of Sumithrin® per acre in any site in any year. More frequent applications may be made to prevent or control a threat to public and/or animal health determined by a state, tribal, or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

Note: ANVIL 10+10 ULV can not be diluted in water. Dilute this product with light mineral oil if dilution is preferred.

### SPRAY DROPLET SIZE DETERMINATION

**Ground Equipment:** Spray equipment must be adjusted so that the volume median diameter (VMD) is 8 to 30 microns ( $8 \leq D_v 0.5 \leq 30 \mu m$ ) and that 90% of the spray is contained in droplets smaller than 50 microns ( $D_v 0.9 < 50 \mu m$ ). Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

**Aerial Equipment:** Spray equipment must be adjusted so that the volume median diameter produced is less than 60 microns ( $D_v < 60 \mu m$ ) and that 90% of the spray is contained in droplets smaller than 100 microns ( $D_v 0.9 < 100 \mu m$ ). The effects of flight speed and, for non-rotary nozzles, nozzle angle on the droplet size spectrum must be considered. Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

### GROUND ULV APPLICATION

Apply ANVIL 10+10 ULV through a standard ULV cold aerosol or non-thermal aerosol (cold fog) generator. Consult the following table for examples of various dosage rates using a swath width of 300 feet for acreage calculations.

Dosage Rate Lbs Sumithrin®/acre	Fl. oz. ANVIL 10+10 ULV per Acre	Flow Rates in fluid oz./minute at truck speeds of:			
		5MPH	10MPH	15MPH	20MPH
0.0036	0.62	1.9 oz.	3.8 oz	5.7 oz	7.6 oz
0.0024	0.42	1.3 oz	2.5 oz	3.8 oz	5.1 oz
0.0012	0.21	0.6 oz	1.3 oz	1.9 oz	2.5 oz

ANVIL 10 + 10 ULV may be applied undiluted with a non-thermal ULV portable "backpack" spray unit capable of delivering particles in the 5 to 25 micron range. Apply at a walking speed of 2 mph, making sure that the same amount of A.I. is applied per acre.

ANVIL 10 + 10 ULV may be applied with suitable thermal fogging equipment. Do not exceed the maximum rates listed above. May be applied at speeds of 5 to 20 mph.

### AERIAL APPLICATION

Prohibition on aerial use: Not for aerial application in Florida unless specifically authorized by the Bureau of Entomology, Florida Department of Agriculture and Consumer Service.

ANVIL 10+10 ULV may be applied at rates of 0.21 to 0.62 fluid ounces of ANVIL 10+10 ULV per acre by fixed wing or rotary aircraft equipped with suitable ULV application equipment. ANVIL 10+10 ULV may also be diluted with a suitable solvent such as mineral oil and applied by aerial ULV equipment so long as 0.62 fluid ounces per acre of ANVIL 10+10 ULV is not exceeded. Aerial application should be made at an altitude below 300 feet. Do not apply when ground wind speeds exceed 10 mph.

Dosage Rate Lbs Sumithrin®/acre	Flow Rates in fluid oz./acre ANVIL® 10 + 10 ULV	
	62 oz	21 oz
0.0036	62 oz	21 oz
0.0024	42 oz	21 oz
0.0012	21 oz	21 oz

### STORAGE & DISPOSAL

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

**STORAGE:** Store in a cool, dry place. Keep container closed.

**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.

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

**FOR MORE INFORMATION CALL:  
1-800-323-5727**

# Material Safety Data Sheet

Date last revised: 15 December 2005

## I. General Information

<b>Chemical Name and Synonyms</b> Sumithrin	<b>Trade Name &amp; Synonyms</b> Anvil 10+10 ULV
<b>Chemical Family</b> Piperonyl Butoxide	<b>EPA Registration Number</b> 1021-1688-8329
<b>Proper DOT Shipping Name</b> Synergized Synthetic Pyrethroid	<b>DOT Hazard Classification</b> Class 9, UN 3082 [bulk only]
<b>Manufacturer</b> Clarke Mosquito Control Products, Inc.	<b>Manufacturer's Phone Number</b> (630) 894-2000
<b>Manufacturer's Address</b> 159 North Garden Avenue Roselle, Illinois 60172	<b>INFOTRAC (Emergency) Hotline</b> 1-800-535-5053

## II. Ingredients

Principal Hazardous Components	CAS #	Percent
Sumithrin® [3-Phenoxybenzyl-(1RS, 3RS; 1RS, 3SR) 2,2-dimethyl-3-(2-methylprop-2-enyl) cyclopropane-carboxylate]	026002-80-2	10.00%
Piperonyl Butoxide [Alpha-(2-(1-butoxyethoxy)-4,5-methylenedioxy-2-propyltoluene]	000051-03-6	10.00%
Petroleum Distillates		1 - 15%
Inert Ingredients are propriety or non-hazardous. Values are not product specifications		40 - 78%

## III. Physical Data

<b>Boiling Point (°F):</b> Not Established	<b>Specific Gravity (H<sub>2</sub>O = 1):</b> 0.884
<b>Vapor Pressure (mm Hg.):</b> Not Established	<b>Vapor Density (Air = 1):</b> Not Established
<b>Solubility in Water:</b> Emulsifiable	<b>pH:</b> Not Applicable
<b>Appearance:</b> Liquid, Clear with a light yellow tinge	<b>Odor:</b> Pungent aromatic, similar to smell of mothballs

## IV. Fire & Explosion Hazard Data

**Flash Point (Test Method: +200 °F (Tag Closed Cup))**

**Extinguishing Media:** Foam, carbon dioxide, or dry chemical

**Special Fire Fighting Procedures:** Treat as an oil fire. Use a full-faced self-contained breathing apparatus along with full protective gear. Keep nearby containers and equipment cool with a water stream. Contain the run-off, if possible, for proper disposal.

## V. Health Hazard Data

**Exposure Limits:** Not established by OSHA or ACGIH

### EMERGENCY FIRST AID

**Skin Contact:** CAUTION. Can cause a burning sensation on more sensitive areas (face, eyes, mouth). Prolonged or repeated exposure can cause irritation and reddening of the skin, possibly progressing into dermatitis. Immediately flush affected area with large amounts of water. Remove contaminated clothing and wash affected areas with soap and water. If irritation persists, get medical attention.

**Eye:** CAUTION. Can cause temporary irritation, tearing, and blurred vision. Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.

**Inhalation:** CAUTION. Excessive inhalation can cause nasal and respiratory irritation. Remove affected person to fresh air. Give oxygen, if necessary. If breathing has stopped, administer artificial respiration and get medical attention immediately.

**Ingestion:** CAUTION. Can cause stomach irritation, resulting in nausea, cramps and vomiting. Excessive ingestion can cause nervous system disorders, such as fatigue, dizziness, headaches, lack of coordination, tremors and unconsciousness. Do not induce vomiting because of aspiration pneumonia hazard. Call a physician or poison control center.

# Material Safety Data Sheet

Date last revised: 15 December, 2005

Anvil 10+10 ULV

## VI. Reactivity Data

Stability:	Stable
Incompatibility	Strong acidic or alkaline materials
Hazardous Decomposition Products	Not Applicable

## VII. Environmental Protection Procedures

**Spill Response:**  
Shut off ignition sources. Stop release, if possible without risk. Dike or contain release, if possible, and if immediate response can prevent further damage or danger. Isolate and control access to the release area. Take actions to reduce vapors. Absorb with appropriate absorbent. For large spills, collect product into drums, etc., via drains, pumps, etc. Absorb with appropriate absorbent. Clean spill area of residues and absorbent. Contaminated absorbent and wash water should be disposed of according to local, state and federal regulations.

**Storage:**  
Store containers upright and closed. Store in areas that are cool, dry and well ventilated. Keep away from heat, ignition sources and strong oxidizers. Emptied contained may retain product residues.

**Waste Disposal:**  
Do not contaminate water when disposing of equipment wash waters. 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 into sewer systems without previously notifying the sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA. Do not mix with other waste materials.

## VIII. Special Protection Information

<b>Eye Protection:</b> OSHA-approved safety glasses, goggles or face shield	<b>Skin Protection:</b> Handlers should wear protective clothing, chemical resistant gloves, and chemical resistant apron when cleaning mixing or loading.
<b>Respiratory Protection:</b> Not required	<b>Ventilation:</b> Mechanical ventilation should be used when handling this product in enclosed spaces.
<b>Other:</b> IMPORTANT. Read and observe all precautions and instructions on the label.	

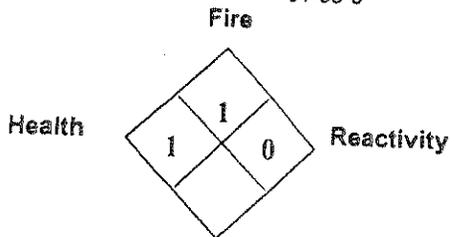
## IX. Additional Regulatory Information

### SARA Title III Data

#### Section 313: (Title III Superfund Amendment and Reauthorization Act)

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Ingredient	CAS Number	Percentage (by weight)
Piperonyl butoxide	51-03-6	10.0%



**NFPA Code Key**  
4 = Severe  
3 = Serious  
2 = Moderate  
1 = Minimal

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.



Bayer Environmental Science

# SUSPEND SC

- Only for Use and Storage by Pest Control Operators and/or Commercial Applicators
- \*For Residential, Industrial and Institutional Control of Major Nuisance Pests Listed on The Label
- \*Controls Numerous Pests in and around Households and Other Structures
- \*Will not Damage Paints, Plastics, Fabrics or Other Surfaces Where Water Alone Causes No Damage
- \*For Insect Control on Commercial and Residential Turf and Landscape Ornamental Plants

**ACTIVE INGREDIENTS:**

\*Deltamethrin

**OTHER INGREDIENTS:**

4.75%
95.25%
100.00%

\*Contains 0.42 lb deltamethrin per gallon.

EPA Reg No. 432-763

E.P.A. Est. No. 432-TX-1

## KEEP OUT OF REACH OF CHILDREN CAUTION

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

**FIRST AID**

**IF INHALED:**

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

**HOT LINE 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 1-800-334-7577 for emergency medical treatment.

FOR PRODUCT INFORMATION, CALL TOLL-FREE: 1-800-331-2867.

## PRECAUTIONARY STATEMENTS

### CAUTION

#### HAZARD TO HUMANS AND DOMESTIC ANIMALS

Harmful if inhaled. Avoid breathing vapor or spray mist. Contact with product may result in transient tingling and reddening of the skin. Remove contaminated clothing and wash before reuse.

#### Environmental hazards

This product is extremely toxic to fresh water and estuarine fish and 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 cleaning equipment or when disposing of equipment washwater.

This pesticide is highly toxic to bees exposed to direct treatment. Do not apply or allow it to drift to crops or weeds on which bees are actively foraging.

## PHYSICAL & CHEMICAL HAZARDS

Do not use water-based sprays of Suspend SC Insecticide in 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.**

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

### GENERAL INFORMATION:

Suspend SC Insecticide is a suspended concentrate insecticide containing 0.42 lb active ingredient per gallon. Suspend SC Insecticide is designed for use both indoors and outdoors and will provide effective knockdown and long residual control of the pests listed on this label.

### Mixing Instructions:

Suspend SC Insecticide is intended to be mixed with water and applied with hand pressurized or power operated sprayers, such as Actisok® or similar equipment, as a coarse spray or with conventional hydraulic boom-type sprayer or other suitable equipment for outdoor broadcast applications. Shake container well before using. When diluting, it is recommended to add approximately half the water to the spray tank, then add the proper amount of Suspend SC Insecticide in accordance with the rates in the appropriate Application Rate table. Agitate, then add the remaining water slowly to avoid excess foam. Thoroughly agitate the sprayer before using to insure proper suspension. If spraying is interrupted when using a back-pack or hand-held spray equipment, reinvert sprayer before use. If spray screens are used, they should be 50 mesh or larger. Dilute Suspend SC Insecticide only with water. Prepare spray solution when ready to make applications.

### Tank Mixing:

Suspend SC Insecticide may be tank-mixed with other currently registered pesticides unless expressly prohibited by the product label. A small volume mixing test with other products is recommended to ensure compatibility. Observe all restrictions and precautions, which appear on the labels of these products.

### Application Methods:

For indoor uses this product may be applied as crack and crevice, spot, general surface treatments. For residential building and structures apply only as a crack and crevice or spot treatment. Treat where pests are found or normally occur. For general pest control outdoors see this section for additional methods of application.

**Crack and Crevice Applications:** Use a low pressure system with a pinpoint or variable pattern nozzle to apply the spray mixture to areas such as floors, cracks and crevices in and around baseboards, walls, expansion joints, areas around water and sewer pipes, and voids formed by equipment or appliances.

**Spot Applications:** Use a low pressure system with a fan-type nozzle to uniformly apply spot treatments in and around cupboards, and between, beneath and behind equipment or appliances. For control of carpet beetles, fleas and ticks indoors, apply as a coarse, low pressure crack and crevice spot treatment to problem areas and infested habitats. Do not treat entire floor, carpet or floor coverings. Do not apply as a space spray. Application to furniture should be restricted to areas where prolonged contact by humans will not occur. Care should be taken to limit spot treatment to pet beds and infested floor coverings.

### Application Rates:

Pests	Concentration of Active Ingredient <sup>1</sup>	Dilution Rate <sup>2</sup>
ants, carpet beetles, firebrats, fleas, gnats, midges, centipedes, millipedes, pantry pests, silverfish, ticks (indoor)	0.01% - 0.03% w/w	0.25 - 0.75 fl oz/gal 12.5 - 37.5 fl oz/50 gals 25 - 75 fl oz/100 gals
Bees, bedbugs, boxeider bugs, fleas (outdoors), ticks(outdoors), cecid flies, cockroaches, elm leaf beetles, ground beetles, moths, midges, crickets, flies (including such flies as stable, house, cluster and horseflies), hornets, killer bees, lice, mosquitoes, Multicolored Asian Lady Beetle, pillbugs, scorpions, sowbugs, spiders, yellowjackets, wasps	0.03% - 0.06%w/w	0.75- 1.5 fl oz/gal 37.5- 75 fl oz/50 gals 75 - 150 fl oz/100 gals
Termites (Formosan & Eastern subterranean-localized control only)	0.06% w/w	1.5 fl oz/gal 75 fl oz/50 gals 150 fl oz/100 gals
Carpenter ants	0.03% w/w	0.75 fl oz/gal 37.5 fl oz/50 gals 75 fl oz/100 gals

<sup>1</sup>The recommended rate for maintenance treatments is 0.01% and for cleanout treatments is 0.03%. For control of severe infestations and longer residual control use the 0.06% rate. In addition, more frequent applications may be needed on concrete surfaces.

<sup>2</sup>0.25 fl. oz = 7.5 milliliters

0.75 fl. oz = 22.7 milliliters

1.5 fl. oz = 45.4 milliliters

### GENERAL PEST CONTROL INDOORS

Treatment Sites: When used in accordance with label directions, Suspend SC may be applied in and around residential and non-residential buildings and structures including residential kitchens and all types of food/feed handling establishments. Suspend SC is intended to be mixed with water and applied indoors as a crack and crevice, spot or general surface treatment with hand pressurized or power operated sprayers or other suitable equipment for applying insecticides to localized areas. For residential buildings and structures apply only as a crack and crevice or spot treatment. This product can be applied to walls, floors, ceilings, in and around cabinets, between, behind and beneath equipment and appliances, around floor drains, window and door frames and around plumbing, sinks and other possible pest harborage sites. Permitted areas of use include, but are not limited to, the food/feed and non-food/non-feed areas of:

Aircraft (cargo only)	Installations
Apartment buildings	Kitchens
Bakeries	Laboratories
Bottling facilities	Mausoleums
Breweries	Meat, poultry & egg processing and packaging plants
Buses	Mobile & motor homes
Cafeterias	Nursing homes
Candy plants	Offices
Canneries	Railcars
Dairy product processing plants	Restaurants
Food manufacturing plants	Schools
Food processing plants	Ships & vessels
Food service establishments	Trailers
Granaries & grain mills	Trucks
Hospitals	Warehouses
Hotels	Wineries
Houses	
Industrial buildings	

Treatments may be applied at 21-day intervals or as necessary to maintain adequate control. Remove pets and cover aquariums and terrariums before spraying. Do not apply to classrooms when in use. Do not use in aircraft cabins.

Treat specific areas that insect inhabit or where they are frequently found. Use 0.25 to 1.5 fluid ounces of Suspend SC in sufficient amount of water and apply to adequately cover 1000 square feet. Do not allow dripping or run-off to occur. Under conditions of severe pest infestation, when quick knockdown and/or longer residual control is desired, use 1.5 ounces of 0.06% Suspend SC per 1,000 sq. ft.

**Premise Pest Control: Cockroaches, Ants, Crickets, Silverfish, Firebrats, Centipedes, Millipedes, Cloth Moths, Earwigs, Pillbugs, Sowbugs, Scorpions and Spiders:** Apply as a coarse, low pressure spot or crack and crevice spray to areas that these pests normally inhabit. Pay particular attention to dark corners of rooms and closets; floor drains; cracks and crevices in walls; along and behind baseboards; beneath and behind sinks, stoves, refrigerators, and cabinets; around plumbing and other utility installations; doors, windows and in attics and crawl spaces. Applications may be made to floor surfaces along baseboards and around air ducts. Let surfaces dry before allowing children or pets to contact surfaces.

**Pantry Pest Control:** To kill adult and accessible stages of insect pests such as *Lesser Grain Borers, Grain Weevils, Flour Beetles, Saw-toothed Grain Beetles, Cigarette Beetles, Merchant Grain Beetles, Angoumois Grain Moths, Mediterranean Flour Moths, Indian Meal Moths, Grain Mites and Spider Mites:* Make applications to cupboards, shelving and storage areas. Remove all foodstuffs, all utensils, shelf paper and other objects before spraying. Allow all treated surfaces to dry and cover shelves with clean paper prior to replacing foodstuffs, utensils or other items. Any foodstuff accidentally contaminated with any spray solution should be discarded.

**Crawling and Flying Insect Pests (such as flies, gnats, midges, mosquitoes, cockroaches, ants and silverfish):** Apply directly to walls, ceilings, window screens and other resting areas as a residual surface treatment. May be used inside residential buildings, as well as in and around carports, garages, storage sheds, unoccupied horse stables and pet kennels.

**Ants:** (including Pharaoh Ants): Apply to trails, around doors and windows and other areas where ants inhabit or enter premises.

**Bedbugs and Lice:** Remove linens and wash before reuse. Apply to mattresses, especially tufts, folds, and edges until moist. Apply to the interior of the frame. Allow to dry before remaking bed.

**Carpet Beetles, Fleas and Ticks:** A total integrated pest management program is recommended. It is suggested that infested areas be thoroughly vacuumed prior to treatment. These areas include all carpet, upholstered furniture, baseboards and other indoor areas frequented by pets. The vacuum cleaner bag should be discarded in an outdoor trash container upon completion. Pet bedding should be cleaned or replaced. Apply Suspend SC as a uniform coarse low-pressure spot or crack and crevice treatment to areas where these pests normally inhabit. Care should be taken to limit spot treatments to pet bedding and its surrounding area, infested floor coverings and pest habitats. Do not treat entire area of floor, carpet or floor coverings. Use a dust such as Deltadust® in areas around electrical equipment. Do not apply as a space spray. Restrict applications to furniture where no prolonged contact by humans will occur. Do not allow people or pets to contact treated areas until spray has dried. This product can be used with an Insect Growth Regulator (IGR). Effective flea control includes controlling the source of flea infestations. This can require treatment of pets with a product registered by EPA for such use and treating outside areas frequented by pets. Suspend SC can also be applied out-of-doors for flea control. Do NOT treat pets with this product.

**Pet Kennels:** For residual control of crawling and flying insects in and around these structures, apply as a general surface and/or crack and crevice spray. Optimal control results if facilities to be treated are clean and if the exterior perimeter is concurrently treated with Suspend SC. Apply only to areas of facility where animals are not present. Allow spray to dry before allowing re-entry of animals into treated areas. Do not apply to animal feed or watering equipment.

#### **Food/Feed Handling Establishments:**

For control of all labeled pests, applications are permitted in food/feed and non-food/non-feed areas of food/feed handling and processing 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/feed. Serving areas where food/feed is exposed and the facility is in operation are also considered food/feed 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). All areas that insects inhabit or through which insects may enter should be treated.

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

**Spot or Crack & Crevice Applications:** Except in federally inspected meat and poultry plants, spot or crack and 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. In the home, do not allow spray to contact food/feed surfaces. If it does, clean surfaces with soap and water.

**GRAIN BINS AND WAREHOUSES:** Dilute 0.25-1.5 fl. oz. of Suspend SC Insecticide with water to make 1 gallon of solution. Apply finished spray to equipment, wall and floor surfaces of grain bins and warehouses at the rate of 1 gallon per 1000 sq. ft. prior to storing or handling grain. Do not allow run-off to occur. Application should be made only after equipment bins and buildings have been thoroughly cleaned. Empty bins or warehouses should be fumigated with an EPA registered fumigant according to the manufacturer's label recommendations when inaccessible areas exist. To help prevent infestation of these structures, apply Suspend SC Insecticide as a perimeter treatment where pests are active and may find entrance. It is recommended to treat a band of soil or lawn up to 6-10 feet wide around and adjacent to structures and treat the foundation to a height of 2 to 3 feet. Mix 0.25-1.5 fl. oz. of Suspend SC Insecticide with water to make 1 gallon of solution. Apply as a coarse spray at a rate of 1 gallon per 1000 sq. ft. Thoroughly and uniformly wet the barrier area but do not allow run-off to occur.

**GENERAL PEST CONTROL OUTDOORS**

Use Suspend SC to control outdoor pests by application as either a perimeter treatment, residual spray or broadcast application to lawns, grounds and ornamental plantings.

**Treatment Sites:** When used in accordance with label directions, Suspend SC may be applied as a perimeter treatment or as a residual spray around residential and non-residential settings. Begin applications when pests are noticed.

**Residual Spray:** Apply Suspend SC as a coarse low-pressure spray at the rate of 0.75 to 1.5 fl oz to surfaces of buildings, porches, screens, window frames, eaves, patios, refuse dumps, garages and lawns.

**Perimeter Treatments:** To help prevent infestation of buildings, apply Suspend SC Insecticide where pests are active and may find entrance. It is recommended to treat a band of soil or lawn up to 6 - 10 feet wide around and adjacent to buildings and treat the building foundation to a height of 2 to 3 feet. Apply as a coarse spray at the rate of 0.25 to 1.5 fl oz of Suspend SC Insecticide in sufficient amount of water. (See Mixing Directions for Perimeter Application below). Use an adequate volume to thoroughly and uniformly wet the barrier area but do not allow run-off to occur.

**MIXING DIRECTIONS FOR Suspend SC Insecticide- OUTDOOR PERIMETER APPLICATION**

**I. Suspend SC Insecticide dilution (0.25 oz./1000 sq. ft.)**

(Based on one home being 1,000 sq. ft.)

Tank Size	15 Gallons		25 Gallons		50 Gallons		100 Gallons	
	Suspend SC Per Tank (fl. Oz.)	Homes Per Tank*	Suspend SC Per Tank (fl. Oz.)	Homes Per Tank*	Suspend SC Per Tank (fl. Oz.)	Homes Per Tank*	Suspend SC Per Tank (fl. Oz.)	Homes Per Tank*
1	3.75	15	6.25	25	12.50	50	25.00	100
3	1.25	5	2.08	8	4.17	16	8.33	33
5	0.75	3	1.25	5	2.50	10	5.00	20
10	0.37	1.5	0.63	2.5	1.25	5	2.50	10

\*Based on Suspend SC Insecticide applied at 0.25 ounces per 1,000 square feet treated per home or structure.

**II. Suspend SC Insecticide dilution (1.00 oz./1000 sq. ft.)**

Tank Size	15 Gallons		25 Gallons		50 Gallons		100 Gallons	
	Suspend SC Per Tank (fl. Oz.)	Homes Per Tank*	Suspend SC Per Tank (fl. Oz.)	Homes Per Tank*	Suspend SC Per Tank (fl. Oz.)	Homes Per Tank*	Suspend SC Per Tank (fl. Oz.)	Homes Per Tank*
1	15.0	15	25.0	25	50	50	100	100
3	5.0	5	8.4	8.3	16.70	16.7	33.3	33.3
5	3.0	3	5.0	5	10.0	10	20.0	20
10	1.5	1.5	2.5	2.5	5.0	5	10.0	10

\*Based on Suspend SC Insecticide applied at 1.00 ounce per 1,000 square feet treated per home or structure.

**Fleas and Ticks:** Apply Suspend SC as a coarse wet spray to areas where fleas and ticks are most likely to be found, such as but not limited to, dog houses, kennels, runways, cracks and crevices in sidewalks, paths or patios, under plants, shrubs, bushes, trees, or other shaded, moist areas where pests may rest.

**Fire Ants:** Apply Suspend SC as a drench. Dilute 1.5 oz per one gallon of water. Gently sprinkle 1 to 2 gallons of the diluted insecticide

over the surface of each mound and surrounding area to a 2-foot diameter. For best results, apply in cool weather, 65 to 80°F or in early morning or late evening hours. Treat new mounds as they appear. Pressurized sprays may disturb the ants and cause migration, reducing product effectiveness.

**Wood-Infesting Insects:**

For control of wood-infesting beetles on surfaces in homes and other structures, apply a 0.06% suspension of Suspend SC. For treatment of small areas, apply by brushing or spraying the suspension evenly on wood surfaces. For large or overhead areas of homes, apartment buildings, etc., apply as a coarse spray to thoroughly cover the area. Cover all surfaces below the area being sprayed with plastic sheeting or other material which can be disposed of by placing in trash if contamination from dripping occurs. Sprayed surfaces should be avoided until the treated area is completely dry.

For control of above-ground termites and wood-infesting beetles in localized areas, apply a 0.06% suspension or sufficient volume of foam of Suspend SC to voids and galleries in damaged wood and in spaces between wooden structural members and between the sill plate and foundation where wood is vulnerable. Applications may be made to inaccessible areas by drilling and then injecting the suspension or foam with a suitable directional injector into the damaged wood or wall voids. All treatment holes drilled in construction elements in commonly occupied areas of structures must be securely plugged.

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

Application to attics, crawl spaces, unfinished basements, or man-made voids may be made with a coarse fan spray of 0.06% suspension to control exposed worker and winged reproductive forms of termites. For control of swarming or reproductive stages of termites, apply a 0.06% suspension to the swarm or area on which they collect.

The purpose of such applications of Suspend SC is to kill workers or winged reproductive forms which may be present at the time of treatment. Such applications are not a substitute for mechanical alteration, soil treatment or foundation treatment but are merely a supplement.

Do not apply solution until location of heat or air conditioning ducts, vents, water and sewer lines and electrical conduits are known and identified. When located, applications may be made around these structures. However, caution must be taken to avoid contamination of these structural elements and airways.

For control of above-ground termites inside trees, utility poles, fencing and decking materials and similar structural members, drill to find the interior infested cavity and inject 0.06% suspension or foam using an appropriate treatment tool with a splashback guard. Termite carton nests in trees may be injected with 0.06% suspension or foam using a pointed injection tool. Multiple injection points to varying depths may be necessary. It is desirable to physically remove carton nest material from trees when such nests are found.

For protection of firewood from carpenter ants and termites, treat soil beneath firewood prior to stacking with a 0.06% suspension at 1 gallon per 8 square feet to prevent carpenter ant or termite infestation. DO NOT treat firewood with this product.

For control of carpenter ants in houses and other structures, use a 0.06% suspension and apply as a general surface, spot, crack and crevice or wall void application. Apply around doors and windows and other places where carpenter ants may enter the premises. Spray or foam into cracks and crevices through small drilled holes into voids where these ants or their nests are present. Use a sufficient amount of coarse spray or foam to cover the area. Do not exceed 1 gallon of dilute suspension per 1000 square feet of treated surface.

For control of carpenter ants inside trees, utility poles, fencing and decking materials and similar structural members, drill to find the interior infested cavity and inject 0.06% suspension or foam using an appropriate treatment tool with a splashback guard.

For control of tunneling carpenter ants in soil, apply a 0.06% suspension as a drench or inject the suspension or foam at intervals of 8 to 12 inches. Establish a uniform vertical barrier at the edge of walls, driveways or other hard surfaces where ants are tunneling beneath the surfaces.

For control of carpenter bees in structures, apply a 0.06% suspension or sufficient volume of foam directly into gallery entrance holes. Following treatment, the entrance holes may be left open 24 hours to be certain that returning adult bees are killed. When there is no activity, the hole may be sealed with a suitable sealant.

**Foam Application Use Directions:** Suspend SC can be converted to a foam and the foam used to treat structural voids to control insect and arthropod pests in walls, under slabs or in other void areas. Mix end-use dilution of Suspend SC with manufacturer's recommended volume of foaming agent. Use the recommended rate suspension converted to a foam to achieve the desired foam expansion ratios. Verify before treatment that the foaming agent is compatible with Suspend SC.

**Turfgrass Applications:**

Suspend SC controls a broad spectrum of insects on turfgrasses and ornamental plants in outdoor areas such as athletic fields, recreational areas, residential landscapes, parks, and public and commercial sites such as around institutional commercial and industrial buildings.

Uniform coverage is essential. Begin applications when pests are evident. Apply Suspend SC as a broadcast application using a conventional hydraulic boom-type sprayer or other suitable equipment for turfgrass pests according to the rates listed in the Application Rates for Turfgrass Sites table. Apply using a minimum of 2 gallons of water per 1000 sq. ft. Higher volumes (4 to 10 gallons of water per 1000 sq. ft.) may be needed for adequate coverage of dense turfgrass canopies and/or turfgrasses maintained under high mowing heights. Allow sufficient time for the application to dry before allowing pets or people to enter treatment area.

Target insects must be exposed to the insecticide to be controlled. For optimum control of surface-feeding insects, delay irrigation or mowing for 24 hours after application. For subsurface-feeding insects, irrigate with 0.25 to 0.5 inch of water immediately after application.

**Tank Mixing:** Suspend SC Insecticide has been found to be compatible with many commonly used pest control and fertilizer products. When tank-mixing Suspend SC, observe all restrictions and precautions and limitations which appear on the label of each product. For any tank-mixture which has not been previously tested, mix the correct proportion of products and water in a quart jar to ensure proper

physical compatibility of the mixture. Tank mixtures of Suspend SC with silicone surfactants may improve the control of some insects.

**NOTE:** In New York State, product may not be applied to turf within 100 feet of a coastal marsh or stream that drains directly into a coastal marsh. For control of turf insects in New York, a second application may be made after two weeks if target insect activity persists.

**Application Rates For Turfgrass Sites:**

Sites	Pests	Rates	Remarks
Athletic fields, recreational areas, lawns & grounds, residential areas, parks, public and commercial sites	Ants, armyworms, centipedes, chiggers, cockroaches, crickets, cutworms, fleas (adult), grasshoppers, ground beetles, Japanese beetles (adults), leafhoppers, mealybugs, pillbugs, scorpions, sod webworms, sowbugs, springtails, spiders, ticks	0.4 to 0.6 fl oz/1000 sq. ft or	Apply when pests become evident.  Apply as a broadcast spray in a minimum of 2 gallons of water per 1000 sq. ft.
		17.5 to 26 fl oz/Acre or	
	Annual bluegrass weevil (adult), billbugs (adult), black turfgrass ataenius (adult), chinch bugs, mites*, mole crickets,	0.06 to 0.08 lb ai/A	
		0.6 to 0.9 fl oz/1000 sq. ft. or	Delay irrigation or mowing for 24 hours after application for optimum control of surface-feeders such as cutworms and webworms. For subsurface-feeders, such as mole crickets, irrigate with 0.25 to 0.5 inch of water immediately after application.  The addition of a silicone surfactant may enhance mole cricket control.
		26 to 39 fl oz/Acre or	
		0.08 to 0.13 lb ai/A	

\*Suppression Only

**Landscape Ornamental Treatments:**

Suspend SC Insecticide provides control of a wide range of insects on landscape ornamentals. Mix Suspend SC with the required amount of water according to the Application Rates for Ornamentals table below. Thoroughly apply the finished spray to upper and lower leaf surfaces to ensure adequate coverage, but prior to dripping. Be sure to penetrate dense foliage to wet leaves, trunk and branches.

Plant safety testing has been conducted on many species of ornamental plants under a wide range of environmental and cultural conditions and no injury has been observed. If local use information is not available, it is advisable to pre-spray a few plants.

**Application Rates for Ornamentals:**

Sites	Pests	Rate	Remarks
Landscape ornamentals including trees, shrubs, evergreens and foliage plants	Adelgids, ants, aphids, azalea lace bugs, bagworms, boxelder bugs, cankerworms, cardamom thrips, cockroaches, crickets, elm leaf beetles, elm spanworms, European pine sawflies, fall webworms, flea beetles, flies, fungus gnats, grasshoppers, greenstriped mapleworm, Gypsy moth (larvae), imported willow leaf beetles, Japanese beetles (adults)*, June beetles (adults), lace bugs, leaf-feeding caterpillars, leafhoppers, leaf rollers, loopers, leaf skeletonizers, mealybugs, midges, mimosa webworms, mites**, orangestriped oakworms, pillbugs, pine shoot beetles, pine tip moths, pinyon spindlegall midges, plant bugs, redhumped caterpillar, red imported fire ants, sawfly larvae, sowbugs, spiders, springtails, spanworms, scale insects (crawlers), tent caterpillars, ticks, webworms, yellownecked caterpillar	4 to 8 oz/100 gallons of water	Apply when pests become evident. Thorough coverage is required for best results. Apply with sufficient water to ensure coverage of upper and lower leaf surfaces.

\*Will provide anti-feedant properties on treated ornamentals against Japanese beetles.

\*\*Suppression only.

**NOTES:**

1. DO NOT apply Suspend SC through any type of irrigation system.
2. DO NOT apply this product to edible crops.
3. DO NOT apply this product in hospital patient rooms while occupied or in any rooms occupied by the elderly or infirm.
4. DO NOT apply in classrooms when in use.
5. DO NOT apply to institutions (including libraries, sport facilities, etc.) in the immediate area when occupants are present.

## STORAGE AND DISPOSAL

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

**STORAGE:** Mix as needed. Store in original container in a secured dry storage area. Avoid extremes in temperatures. Prevent cross-contamination with other pesticides and fertilizers. If the container is leaking and/or material is spilled, on floor or paved surfaces, absorb on sawdust or other commercially available absorbing material, sweep up and remove to chemical waste area for your disposal. Concentrate is stable at normal storage temperatures.

### 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:** [less than one gallon] If empty: Do not reuse this container. Securely wrap container in several layers of newspaper and discard 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 any indoor or outdoor drain.

[Non-Refillable] Triple rinse (or equivalent) then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke. [Refillable] Replace the dry disconnect cap if applicable, and seal all openings which have been opened during use. Return the empty container to a collection site designated by Bayer Environmental Science. If the container has been damaged and cannot be returned according to the recommended procedures, contact the Customer Service Department at 1-800-843-1702 to obtain proper handling instructions.

## 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 Science'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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A Business Group of Bayer CropScience LP



Bayer Environmental Science

PO BOX 12014, 2 T. W. Alexander Drive  
Research Triangle Park, NC 27709

04-05-05-ver2



**Material Safety Data Sheet**

**SUSPEND® SC INSECTICIDE**

MSDS Number: 102000003167

MSDS Version 2.2

Revision Date: 01/29/2007

**SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION**

Product Name                    SUSPEND® SC INSECTICIDE  
MSDS Number                   102000003167

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

For MEDICAL, TRANSPORTATION or other EMERGENCY call: 1-800-334-7577 (24 hours/day)  
For Product Information call: 1-800-331-2867

**SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS**

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Deltamethrin	52918-63-5	4.75
1,2-Propanediol	57-55-6	15.20

**SECTION 3. HAZARDS IDENTIFICATION**

*NOTE: Please refer to Section 11 for detailed toxicological information.*

**Emergency Overview**

Caution! Hazard to humans and domestic animals. Harmful if inhaled. Do not breathe vapours or spray mist. Contact with product may result in transient tingling and reddening of the skin. Remove and wash contaminated clothing before re-use.

<b>Physical State</b>	liquid suspension
<b>Odor</b>	none
<b>Appearance</b>	white
<b>Routes of Exposure</b>	Inhalation, Skin contact
<b>Immediate Effects</b>	
<b>Skin</b>	Contact with product may result in transient tingling and reddening of the skin.
<b>Inhalation</b>	Harmful if inhaled. Do not breathe vapours or spray mist.
<b>Potential Environmental Effect</b>	Extremely toxic to fish and aquatic invertebrates.

**SECTION 4. FIRST AID MEASURES**



**Material Safety Data Sheet**

**SUSPEND® SC INSECTICIDE**

MSDS Number 102000003167  
MSDS Version 2.2

<b>General</b>	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
<b>Eye</b>	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.
<b>Skin</b>	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.
<b>Ingestion</b>	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.
<b>Inhalation</b>	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.
<b>Notes to Physician Treatment</b>	There is no specific antidote. Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.

**SECTION 5. FIRE FIGHTING MEASURES**

<b>Flash point</b>	not applicable
<b>Suitable Extinguishing Media</b>	Carbon dioxide (CO <sub>2</sub> ), Dry chemical, Foam, Water
<b>Fire Fighting Instructions</b>	Fight fire from upwind position. Evacuate personnel to safe areas. Cool closed containers/ tanks exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.  Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

<b>Personal Precautions</b>	Keep unauthorized people away. Avoid contact with spilled product or contaminated surfaces. In case of spill, leak or emergency, use a NIOSH approved chemical cartridge-type respirator.
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**Material Safety Data Sheet**  
**SUSPEND® SC INSECTICIDE**

MSDS Number: 102000003167  
MSDS Version 2.2

**Methods for Cleaning Up** Dike area to prevent runoff. Collect and transfer the product into a properly labelled and tightly closed container. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Decontaminate tools and equipment following cleanup.

**Additional Advice** Isolate area. Contaminated soil may have to be removed and disposed.

**SECTION 7. HANDLING AND STORAGE**

**Handling Procedures** Avoid contact with skin, eyes and clothing. Handle and open container in a manner as to prevent spillage. Smoking, eating and drinking should be prohibited in the application area.

**Storing Procedures** Store in original container. Do not contaminate water, food, or feed by storage or disposal. Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed.

**Work/Hygienic Procedures** Handle in accordance with good industrial hygiene and safety practice. Recommendations for exposure control/personal protection are intended for the manufacture, formulation and packaging of the product.

Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. Remove and wash contaminated clothing before re-use.

**Min/Max Storage Temperatures** no data available

**SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**General Protection** Train employees in safe use of the product. Eye wash facility and safety shower should be available. Follow all label instructions.

**Engineering Controls** Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.

**Eye/Face Protection** Chemical resistant goggles must be worn.

**Hand Protection** Chemical-resistant gloves made of waterproof material such as neoprene, butyl rubber, barrier laminate or nitrile rubber.

**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.

**Exposure Limits**



**Material Safety Data Sheet**  
**SUSPEND® SC INSECTICIDE**

MSDS Number 102000003167  
 MSDS Version 2.2

Pyrogenic (fumed) amorphous silica	112945-52-5	Z3	TWA
		Z3	TWA
		Remarks	

20 millions of particles per  
 cubic foot of air  
 0.8 mg/m<sup>3</sup>  
 The value is calculated from  
 a specified equation using a  
 value of 100%. Values lower  
 than 100% will give higher  
 exposure limits. See  
 regulation for specific  
 equation.

1,2-Propanediol	57-55-6	WEEL	TWA
		Form of exposure	

Aerosol. 10 mg/m<sup>3</sup>

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	white
Physical State	liquid suspension
Odor	none
pH	6.6 suspension in water
	<= 7.0 (100 %) at 20 °C
Specific Gravity	1.05 at 20 °C
Density	approx. 1.053 g/cm <sup>3</sup> at 20 °C
Boiling Point	no data available
Melting / Freezing Point	no data available
Water solubility	immiscible
Minimum Ignition Energy	no data available
Viscosity	165 mPa.s at 20 °C

**SECTION 10. STABILITY AND REACTIVITY**

Chemical Stability	Stable under normal conditions.
Incompatibility	Strong oxidizing agents strong reducing agents
Hazardous Decomposition Products	Thermal decomposition can lead to release of: Carbon monoxide



**Material Safety Data Sheet**  
**SUSPEND® SC INSECTICIDE**

MSDS Number 102000003167  
MSDS Version 2.2

Carbon dioxide (CO<sub>2</sub>)

**SECTION 11. TOXICOLOGICAL INFORMATION**

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

- Acute Oral Toxicity** male/female combined rat: LD50: > 15,000 mg/kg
- Acute Dermal Toxicity** male/female combined rabbit: LD50: > 10,000 mg/kg
- Acute Inhalation Toxicity** male/female combined rat: LC50: > 1.02 mg/l  
Exposure time: 4 h  
Determined in the form of a respirable aerosol.  
(actual)
- male/female combined rat: > 4.08 mg/l  
Exposure time: 1 h  
Determined in the form of a respirable aerosol.  
Extrapolated from the 4 hr LC50.  
(actual)
- Skin Irritation** rabbit: No skin irritation.
- Eye Irritation** rabbit: No eye irritation.
- Sensitization** guinea pig: Non-sensitizing.
- Chronic Toxicity** Deltamethrin caused neurobehavioral effects (e.g., tremors) in chronic toxicity studies in rats and dogs.

**Assessment Carcinogenicity**

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

**ACGIH**

None.

**NTP**

None.

**IARC**

Deltamethrin

**OSHA**

None.

52918-63-5

Overall evaluation: 3

**Reproductive & Developmental Toxicity**

**REPRODUCTION:** Deltamethrin was not a reproductive toxicant in multi-generation reproduction studies in rats.

**DEVELOPMENTAL TOXICITY:** Deltamethrin was not a primary developmental toxicant in developmental toxicity studies in rats and rabbits. Developmental effects (e.g., delayed ossifications) were observed in rabbits at the high-dose but



**Material Safety Data Sheet**

**SUSPEND® SC INSECTICIDE**

MSDS Number 102000003167  
MSDS Version 2.2

were considered secondary to maternal toxicity.

**Neurotoxicity**

Deltamethrin caused neurobehavioral effects (e.g., tremors) without correlating neuropathological changes in acute and subchronic neurotoxicity screening studies in rats.

**Mutagenicity**

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

**SECTION 12. ECOLOGICAL INFORMATION**

**Toxicity to Fish**

Oncorhynchus mykiss (rainbow trout)  
LC50: 0.00026 mg/l  
Exposure time: 96 h

Bluegill sunfish  
LC50: 0.00017 mg/l  
Exposure time: 96 h

**Acute Toxicity to Aquatic Invertebrates**

Eastern Oyster  
LC50: 0.0082 mg/l  
Exposure time: 96 h

Mysidopsis bahia (mysid shrimp)  
LC50: 0.000001 mg/l  
Exposure time: 96 h

**Toxicity to other organisms**

Bobwhite quail  
LD50: > 2,250 mg/kg

Bobwhite quail  
LC50: > 5,620 ppm

Mallard duck  
LC50: 8,039 ppm

**Stability in water**

Half life: 55 - 65 h  
pH: 9.0

**Bioaccumulation**

Bluegill sunfish BCF: 189 - 3,930

**Environmental Precautions**

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other water 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. For guidance, contact your State Water Board or Regional Office of the EPA. Retain and dispose of contaminated wash water.



**Material Safety Data Sheet**  
**SUSPEND® SC INSECTICIDE**

MSDS Number: 102000003167  
MSDS Version 2.2

**SECTION 13. DISPOSAL CONSIDERATIONS**

**General Disposal Guidance**

Do not contaminate water, food, or feed by disposal. Dispose in accordance with all local, state/provincial and federal regulations.

Follow advice on product label and/or leaflet. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**Container Disposal**

Triple rinse containers. Puncture container to avoid re-use. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State/Provincial and local authorities, by burning. If burned, stay out of smoke.

**SECTION 14. TRANSPORT INFORMATION**

PROPER SHIPPING NAME: Not DOT regulated

NOTE: For transport purposes (49 CFR Part 173.132), the calculated 1-Hour LC50 (Rat) is: 4.08 mg/l.

**SECTION 15. REGULATORY INFORMATION**

**US Federal Regulations**

**TSCA list**

1,2-Propanediol

57-55-6

**US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)**

None.

**SARA Title III - Section 302 - Notification and Information**

None.

**SARA Title III - Section 313 - Toxic Chemical Release Reporting**

None.

**US States Regulatory Reporting**

**CA Prop65**

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

**US State Right-To-Know Ingredients**

1,2-Propanediol

57-55-6

MN, RI

**Canadian Regulations**

**Canadian Domestic Substance List**

1,2-Propanediol

57-55-6

**Environmental**

Bayer Environmental Science



**Material Safety Data Sheet**  
**SUSPEND® SC INSECTICIDE**

MSDS Number 102000003167  
MSDS Version 2.2

**CERCLA**

None.

**Clean Water Section 307 Priority Pollutants**

None.

**Safe Drinking Water Act Maximum Contaminant Levels**

None.

**International Regulations**

**European Inventory of Existing Commercial Substances (EINECS)**

Deltamethrin

52918-63-5

1,2-Propanediol

57-55-6

**SECTION 16. OTHER INFORMATION**

NFPA 704 (National Fire Protection Association):

Health - 1

Flammability - 0

Reactivity - 0

Others - none

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

Reason to Revise: Updated for general editorial purposes.

Revision Date: 01/29/2007

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