

This document is for informational purposes only. Please read and follow label directions on the product container and verify state registration in your state before using, selling or distributing.



DeltA Gard®

Insecticide

[Mosquito Image]

FOR WIDE AREA MOSQUITO CONTROL 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, OR AS ALLOWED BY STATE REGULATIONS FOR PERSONS TREATING PRIVATE PROPERTY.

FOR THE CONTROL OF FLIES AND MOSQUITOES IN AND AROUND POULTRY AND LIVESTOCK FACILITIES.

- Provides Quick Knockdown and Effective Control of Mosquitoes, Flies, Gnats, and Non-Biting Midges
- A FFAST™ Formulation
- May be Applied Undiluted or Diluted in Water

ACTIVE INGREDIENT:

Deltamethrin 2.0 %

OTHER INGREDIENTS : 98.0%

TOTAL : 100.0%

Contains 0.17 pounds of Deltamethrin per gallon

EPA Reg. No. 432-1534

EPA Est. No. _____

PRECAUCION AL CONSUMIDOR: Si usted no lee ingles, 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.)

KEEP OUT OF REACH OF CHILDREN CAUTION

See Side Panel For Additional Precautionary Statements

For MEDICAL and TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577

For PRODUCT USE Information, Call 1-800-331-2867

FIRST AID

If swallowed

- Call a poison control center or doctor for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything 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.
- Call a poison control center or doctor for immediate treatment advice.

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

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Personal Protective Equipment (PPE)

Mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus 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

Users 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.

ENVIRONMENTAL HAZARDS

This product is extremely toxic to fresh water and estuarine fish and invertebrates. Runoff from treated areas into a body of water may be hazardous to fish and aquatic invertebrates.

Do not apply over 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 away from the water in order to minimize incidental deposition into the water body. Do not contaminate water when disposing of equipment rinsate or wash waters.

When used for mosquito adulticiding;

This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow drift when bees are foraging 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.

When applied outdoors for fly control;

This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow drift when bees are foraging the treatment area.

DIRECTIONS FOR USE

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

Do not apply by aircraft.

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 regulatory requirements exist.

SHAKE OR AGITATE THOROUGHLY BEFORE USE: Product (either diluted or undiluted) must be thoroughly agitated before use. Avoid prolonged storage of excess formulation in application equipment.

NOTICE: This concentrate is for dilution with water only; it cannot be diluted in oil.

APPLICATION INSTRUCTIONS

This product is recommended for application with hand-held, backpack, portable & truck mounted ULV sprayers and portable and vehicle mounted mist-blowers for wide area applications, to control adult mosquitoes, black flies, gnats, and non-biting midges, stable flies, horse flies, deer flies, sheep flies, horn flies, and nuisance flying insects such as houseflies or blow flies.

WIDE AREA AND SPACE SPRAY APPLICATION FOR MOSQUITO CONTROL OVER NON CROP AREAS

Do not exceed 0.036 pounds of AI per acre per year to any site. During any three day period do not apply more than 0.00134 lb a.i./A. Do not make more than 25 applications per site per year. More frequent applications and more than 25 applications per site 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.

DeltaGard Insecticide is approved for application as an Ultra-Low Volume (ULV) aerosol to control flying or resting adult mosquitoes in residential, industrial, urban, recreational, and municipal areas where adult mosquitoes are found. This product is used for control of mosquitoes in areas such as residential areas, industrial areas, urban areas (such as utility tunnels, sewers, storm drains and catch basins, pipe chases, basements, underground passages, parking decks, crawl spaces, or uninhabited buildings), parks, campsites, woodlands, athletic fields, golf courses, playgrounds, recreational and overgrown waste areas, roadsides, swamps, marshes, tidal areas, corrals, feed lots, swine lots, poultry ranges, zoos, animal quarters, barns, dumps, junkyards, tire dumps, and other areas where adult mosquitoes may be found.

If treatments are made with animals present, the maximum number of applications per year depends on the application rate used; 10 applications at 0.00134 lb ai/A, 15 applications at 0.00089 lb ai/A, or 30 applications at 0.00045 lb ai/A.

For best results, apply when insects are most active and meteorological conditions are conducive to keeping the spray cloud in the air column close to the ground. An inversion of air temperatures and a light breeze is preferable. Application during the cooler hours of the night or early morning is recommended. Apply when wind speed is equal to or greater than 1 mph.

APPLICATIONS OVER CROPS OR TO AREAS FAVORING DRIFT OVER CROPS

This product may be applied over any and all crops or agricultural areas, (including row, tree, fruit, citrus, pasture, rangeland, and other areas where agricultural enterprises take place) for the control of adult mosquitoes within or adjacent to the treatment areas, or to areas where drift over cropland could occur. Use label rates and follow directions for use as directed in this label. Applications over crops or where drift may occur over crops are limited to 0.0134 lb ai per acre per year, with no more than one application in any three day interval. Maximum number of applications per year depends on the application rate used; 10 applications at 0.00134 lb ai/A, 15 applications at 0.00089 lb ai/A, or 30 applications at 0.00045 lb ai/A. More frequent applications and more than 0.0134 lb. ai per acre per year per site 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.

DROPLET SIZE DETERMINATION FOR GROUND APPLICATION EQUIPMENT

This proprietary FFAST (Film Forming Aqueous Spray Technology) formulation greatly reduces the evaporation rate of water from the sprayed droplets and allows the water-based spray cloud to behave as that produced by a typical oil-based formulation. This enables the spray droplets to maintain optimum size and stability while drifting through the target area.

Spray equipment must be adjusted so that the volume median diameter (VMD) is between 8 - 30 microns ($8\mu \leq D_{v0.5} \leq 30\mu$) and that 90% of the spray is contained in droplets smaller than 50 microns ($D_{v0.9} < 50\mu$). Directions from the equipment manufacturer or vendor 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.

ULV NON-THERMAL AEROSOL (COLD FOG):

Apply through any non-thermal ULV application equipment capable of producing the required droplet spectrum. Base acreage calculations on the equipment manufacturer's recommended swath width. Apply at a rate not to exceed 0.00134 pounds of deltamethrin per acre in any given 3 day interval. An optimum swath is created when this product is applied from a truck that is being driven perpendicular to the wind direction. Direct the spray head of equipment to ensure even distribution of the spray cloud throughout the area.

This product may be applied through ULV Cold Aerosol Generators, or other equipment designed for non-thermal ULV aerosol applications. The desired application rate may be obtained under different conditions by altering the dilution rate of this product, the flow rate of the insecticide from the application equipment and the vehicle speed. Examples are given in the following table:

Flow Rate based on a 300 foot swath width (Fluid Ounces Per Minute)

Application Rate (lb deltamethrin/ Acre)	Vehicle Speed (MPH)	Undiluted	Diluted 1 + 1	Diluted 1 + 2	Diluted 1 + 3	Diluted 1 + 4
0.00045	5	1.01	2.02	3.03	4.04	5.05
	10	2.02	4.04	6.06	8.08	10.11
	15	3.03	6.06	9.10	12.13	15.16
	20	4.04	8.08	12.13	16.17	20.21
0.00089	5	2.02	4.04	6.06	8.08	10.11
	10	4.04	8.08	12.13	16.17	20.21
	15	6.06	12.13	18.19	24.25	30.32
	20	8.08	16.17	24.25	32.34	40.42
0.00134	5	3.04	6.09	9.13	12.17	15.22
	10	6.09	12.17	18.26	24.34	30.43
	15	9.13	18.26	27.39	36.52	45.65
	20	12.17	24.34	36.52	48.69	60.86

Where dense vegetation or a public health emergency is present, the use of the highest label rate is recommended.

When targeting organophosphate resistant or other difficult to control species of mosquitoes or flies use of the high label rate is recommended.

PORTABLE, BACKPACK OR HAND CARRIED ULV APPLICATION: Apply through non-thermal ULV application equipment and base acreage calculations on a 50 foot swath. At a pace of 2 MPH (2.9 ft/sec) apply 1 ounce per minute of DeltaGard Insecticide diluted as follows: for an application rate of 0.00045 pounds of Deltamethrin per acre dilute 1 to 14, for an application rate of 0.00089 pounds of deltamethrin per acre dilute 1 to 6.5, for an application rate of 0.00134 pounds of deltamethrin per acre dilute 1 to 4. Based on the above dilution and application rates apply 5 ounces of diluted product while walking 870 feet (290 yards).

APPLICATION FOR FLY CONTROL

DeltaGard Insecticide is approved for application as an Ultra-Low Volume (ULV) aerosol to control flying or resting adult flies in residential, industrial, urban, recreational, and municipal areas where flies are found. This product is used for control of flies in areas such as residential areas, industrial areas, urban areas (such as utility tunnels, sewers, storm drains and catch basins, pipe chases, basements, underground passages, parking decks, crawl spaces, or uninhabited buildings), parks, campsites, woodlands, athletic fields, golf courses, playgrounds, recreational and overgrown waste areas, roadsides, swamps, marshes, tidal areas, corrals, feed lots, swine lots, poultry ranges, zoos, animal quarters, barns, dumps, junkyards, tire dumps, and other areas where adult mosquitoes and flies may be found.

This product is recommended for application with hand-held, backpack, portable & truck mounted ULV sprayers and portable and vehicle mounted mist-blowers for area applications, to control, black flies, gnats, non-biting midges, stable flies, horse flies, deer flies, sheep flies, horn flies, and nuisance pests such as face flies or blow flies. Spray equipment must be adjusted so that the volume median diameter (VMD) is between 8 - 30 microns ($8\mu \leq Dv0.5 \leq 30\mu$) and that 90% of the spray is contained in droplets smaller than 50 microns ($Dv 0.9 < 50\mu$).

For the treatment of livestock and poultry facilities (e.g., cattle, dairy and livestock barns, goat houses, horse stables/barns, loafing sheds, poultry houses, shade houses, stables, swine houses, feedlots, manure piles, swine yards, corrals, stockyards, holding pens and other animal facilities) where flies become pests and quick knockdown is needed.

This product may be applied undiluted, but to maximize efficacy against larger fly species (e.g., blow flies, filth flies) it is recommended to dilute in water (1 + 1) before application, increasing the droplet density in the ULV cloud.

Indoors, reduce air movement as much as possible before applying by closing doors, windows and other openings; if animals are present, ventilate the treated area immediately following application. When treating indoors, cover any exposed drinking water, drinking fountains, and animal feed before application. Outdoors, apply when insects are most active, usually in late afternoon when there is little wind. Pay particular attention to areas where flies congregate, such as around feed bunks, fences, and on the exterior walls of buildings. Animals may be present during treatment.

If treatments are made with animals present, the maximum number of applications per year depends on the application rate used; 10 applications at 0.00134 lb ai/A, 15 applications at 0.00089 lb ai/A, or 30 applications at 0.00045 lb ai/A.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE AND SPILL PROCEDURES: Store upright at room temperature. Avoid exposure to extreme temperatures. In case of spill or leakage, soak up with an absorbent material such as sand, sawdust, earth, fuller's earth, etc. Dispose of with chemical waste.

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

Container Handling:

Rigid, Non-refillable containers small enough to shake (i.e., with capacities equal to or less than 5 gallons)

Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) 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. 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.

Rigid Non-refillable containers that are too large to shake (i.e., with capacities greater than 5 gallons or 50 pounds)

Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. 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.

Refillable container: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. 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.

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. Crop injury, 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 Bayer CropScience LP. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP 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 Bayer CropScience LP is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP 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 BAYER CROPSCIENCE LP'S ELECTION, THE REPLACEMENT OF PRODUCT.

DeltaGard is a registered trademark and FFAST is a trademark of the Bayer Group

Net Contents:

PRODUCED FOR



Bayer Environmental Science

**Bayer Environmental Science
A Division of Bayer CropScience LP
PO BOX 12014, 2 T. W. Alexander Drive
Research Triangle Park, NC 27709**

03/26/2015AV1



DELTAGARD® INSECTICIDE

Version 2.1 / USA
102000025884

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Revision Date: 04/04/2014
Print Date: 04/27/2015

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

Product identifier

Trade name DELTAGARD® INSECTICIDE

Product code (UVP) 81015694

SDS Number 102000025884

EPA Registration No. 432-1534

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

Use Insecticide

Restrictions on use No restrictions known.

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

Eye irritation : Category 2B

Skin sensitisation : Category 1B



Signal word: Warning

Hazard statements

Causes eye irritation.

May cause an allergic skin reaction.

Precautionary statements

Wash thoroughly after handling.

Avoid breathing mist and spray.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves.



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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.
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Specific measures (see supplemental first aid instructions on this label).
Wash contaminated clothing before reuse.
Dispose of contents/container in accordance with local regulation.

Other hazards

No other hazards known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component Name	CAS-No.	Average % by Weight
Deltamethrin	52918-63-5	2.00
Trade Secret Ingredient(s)		31.35

Identity and specific percent composition of one or more Trade Secret materials is being withheld.

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 No symptoms known or expected.

Indication of any immediate medical attention and special treatment needed



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Treatment	Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.
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SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable	Water spray, Foam, Carbon dioxide (CO ₂), Dry chemical
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Unsuitable	None known.
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Special hazards arising from the substance or mixture	Dangerous gases are evolved in the event of a fire.
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Advice for firefighters

Special protective equipment for fire-fighters	Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.
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Further information	Fight fire from upwind position. Keep out of smoke. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.
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Flash point	no data available
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Autoignition temperature	no data available
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Lower explosion limit	no data available
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Upper explosion limit	no data available
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Explosivity	not applicable
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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.
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Methods and materials for containment and cleaning up

Methods for cleaning up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.
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Additional advice	Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal.
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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.
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SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use only in area provided with appropriate exhaust ventilation. Ensure adequate 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.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Deltamethrin	52918-63-5	0.02 mg/m ³ (TWA)		OES BCS*

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

Additional advice

This product contains material which are Trade Secret and may have Occupational Exposure Limits.

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 with side-shields

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



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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	emulsion
Odor	characteristic
Odour Threshold	no data available
pH	5.0 - 8.0 at 100 %
Vapor Pressure	no data available
Vapor Density (Air = 1)	no data available
Density	1.02 g/cm ³
Evaporation rate	no data available
Boiling Point	no data available
Melting / Freezing Point	no data available
Water solubility	dispersible
Minimum Ignition Energy	not applicable
Decomposition temperature	not applicable
Partition coefficient: n-octanol/water	no data available
Viscosity	135 - 500 mPa.s
Flash point	no data available
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Explosivity	not applicable

SECTION 10: STABILITY AND REACTIVITY

Reactivity	
Thermal decomposition	not applicable
Chemical stability	Stable under normal conditions.



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Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	no data available
Incompatible materials	no data available
Hazardous decomposition products	No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes Inhalation, Ingestion, Eye contact

Immediate Effects
Eye Causes eye irritation.

Ingestion Harmful if swallowed.

Information on toxicological effects

Acute oral toxicity LD50 (rat) 3,129 mg/kg

Acute inhalation toxicity LC50 (rat) > 5.07 mg/l
Exposure time: 4 h

Acute dermal toxicity LD50 (rabbit) > 5,000 mg/kg

Skin irritation No skin irritation (rabbit)

Eye irritation Mild eye irritation. (rabbit)

Sensitisation Sensitising (mouse)
OECD Test Guideline 429, local lymph node assay (LLNA)

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



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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 (<i>Oncorhynchus mykiss</i>)) 0.00091 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient deltamethrin.
Toxicity to aquatic invertebrates	EC50 (Water flea (<i>Daphnia magna</i>)) 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 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 allow to get into surface water, drains and ground water. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product	Dispose in accordance with all local, state/provincial and federal regulations.
Contaminated packaging	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.



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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	3082
Class	9
Packaging group	III
Marine pollutant	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DELTAMETHRIN SOLUTION)

IATA

UN number	3082
Class	9
Packaging group	III
Environm. Hazardous Mark	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DELTAMETHRIN SOLUTION)

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

SECTION 15: REGULATORY INFORMATION

This product contains material(s) which are Trade Secret and are on various Regulatory Lists. These material(s) are not listed below.

EPA Registration No. 432-1534

US Federal Regulations

TSCA list

None.

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



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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

None.

Canadian Regulations

Canadian Domestic Substance List

None.

Environmental

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

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: Keep out of the reach of children.
Harmful if swallowed.
Causes eye irritation.
Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

SECTION 16: OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

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

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

Health - 1 Flammability - 1 Physical Hazard - 0 PPE -

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

Bayer Environmental Science

SAFETY DATA SHEET



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Reason for Revision: Reviewed and updated for general editorial purposes. The following sections have been revised: Section 2: Hazards Identification. Section 3: Composition / Information on Ingredients. Section 11: Toxicological Information. Section 12. Ecological information. Section 14: Transport Information.

Revision Date: 04/04/2014

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.