



# DELTAGARD 20EW

GROUP 3A INSECTICIDE

Insecticide

Suspension

FOR CONTROL OF ADULT MOSQUITOES

OUTDOOR USE ONLY

COMMERCIAL

ACTIVE INGREDIENT: Deltamethrin ..... 20 g/L

Contains 2-bromo-2-nitropropane-1,3-diol (bronopol) at 0.036%, 5-chloro-2-methyl-4-isothiazolin-3-one at 0.0017%, and 2-methyl-4-isothiazolin-3-one at 0.0006% as preservatives

**REGISTRATION NUMBER 32656 PEST CONTROL PRODUCTS ACT**

READ THE LABEL AND BOOKLET BEFORE USING

POTENTIAL SKIN SENSITIZER

NET CONTENTS: 1 L to bulk

Product Information: 1-888-283-6847

Bayer CropScience Inc.  
Suite 200, 160 Quarry Park Blvd. S.E.  
Calgary, Alberta T2C 3G3

In case of spills, poisoning or fire, telephone emergency response number  
1-800-334-7577 (24 hours a day).

**PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN.** Potential skin sensitizer. Harmful if swallowed, inhaled, or absorbed through the skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using toilet. Remove and wash contaminated clothing before reuse. Do not apply this product in a manner that will directly contact workers, other persons, or domestic animals.

**PERSONAL PROTECTIVE EQUIPMENT (PPE):** Wear a long-sleeved shirt, long pants, chemical resistant gloves, and shoes plus socks during mixing, loading, applying, clean-up and repair. Follow manufacturer's instructions for cleaning/maintaining PPE. If there are no instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**USER SAFETY RECOMMENDATIONS:** Users should wash hands before eating, drinking, smoking, chewing gum or using the toilet. Remove clothing/PPE immediately if pesticide gets inside, then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change clothing.

**FIRST AID:** Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention. **IF SWALLOWED:** Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person. **IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice. **IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice. **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 centre or doctor for treatment advice.

**TOXICOLOGICAL INFORMATION:** No specific antidote is available. Skin exposure may cause transient sensations (tingling, burning, itching, numbness). Treat symptomatically.

**ENVIRONMENTAL PRECAUTIONS:**  
**TOXIC TO AQUATIC ORGANISMS.**

**TOXIC TO BEES AND CERTAIN BENEFICIAL INSECTS.** Applications are typically made during the cooler hours of the night or early mornings which will minimize exposure to foraging bees and beneficial insects.

**STORAGE:** 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. Keep in original container during storage. Store upright at room temperature. Avoid exposure to extreme temperatures. Store the tightly closed container away from feeds, seeds, fertilizers, plants and foodstuffs. Do not use or store in or around the home. To prevent contamination, store this product away from food or feed.

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

**DISPOSAL: Recyclable Container:** Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site: Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank. Make the empty, rinsed container unsuitable for further use. If there is no container collection site in your area, dispose of the container in accordance with provincial requirements. **Returnable Container:** Do not reuse this container for any purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).

**Refillable Container Disposal:** For disposal, this empty container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not reuse this container for any other purpose.

**Disposal of Unused, Unwanted Product:** For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for cleanup of spills.

**NOTICE TO USER:** This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

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## **SECTION 1: NOTICES**

**NOTICE TO USER:** This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

## **SECTION 2: PRECAUTIONS, PROTECTIVE CLOTHING AND EQUIPMENT**

**PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN.**

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

Do not apply this product in a manner that will directly contact workers, other persons, or domestic animals.

**PERSONAL PROTECTIVE EQUIPMENT (PPE):**

Wear a long-sleeved shirt, long pants, chemical resistant gloves, and shoes plus socks during mixing, loading, applying, clean-up and repair. Follow manufacturer's instructions for cleaning/maintaining PPE. If there are no instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**USER SAFETY RECOMMENDATIONS:**

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

## **SECTION 3: FIRST AID AND TOXICOLOGICAL INFORMATION**

**FIRST AID:** Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

IF SWALLOWED:	<ul style="list-style-type: none"><li>• Call a poison control centre or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by a poison control centre or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
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IF IN EYES:	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control centre or doctor for treatment advice.</li> </ul>
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control centre or doctor for treatment advice.</li> </ul>
IF INHALED:	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control centre or doctor for treatment advice.</li> </ul>

**TOXICOLOGICAL INFORMATION:** No specific antidote is available. Skin exposure may cause transient sensations (tingling, burning, itching, numbness). Treat symptomatically.

#### **SECTION 4: ENVIRONMENTAL PRECAUTIONS**

TOXIC TO AQUATIC ORGANISMS.

TOXIC TO BEES AND CERTAIN BENEFICIAL INSECTS. Applications are typically made during the cooler hours of the night or early mornings which will minimize exposure to foraging bees and beneficial insects.

#### **SECTION 5: STORAGE**

- 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.
- Keep in original container during storage.
- Store upright at room temperature. Avoid exposure to extreme temperatures.
- Store the tightly closed container away from feeds, seeds, fertilizers, plants and foodstuffs.
- Do not use or store in or around the home.
- To prevent contamination, store this product away from food or feed.

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

#### **SECTION 6: DISPOSAL**

**Recyclable Container:** Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

**Returnable Container:** Do not reuse this container for any purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).

**Refillable Container Disposal:** For disposal, this empty container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not reuse this container for any other purpose.

**Disposal of Unused, Unwanted Product:** For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for cleanup of spills.

## **SECTION 7: DIRECTIONS FOR USE**

As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section.

### **ULTRA-LOW VOLUME SPRAY APPLICATIONS FOR MOSQUITO CONTROL:**

DELTAGARD 20EW is to be applied in Ultra-Low Volume (ULV) sprayers to control adult mosquitoes in residential, industrial, urban/municipal and recreational areas where adult mosquitoes are a problem. Areas of use include parks, campsites, athletic fields, golf courses, playgrounds, roadsides, dumps, junkyards and tire dumps.

DELTAGARD 20EW can be applied to control adult mosquitoes in non-crop areas adjacent to cropland.

### **Rate and Re-Application Instructions:**

Apply 25-75 mL DELTAGARD 20EW per hectare (0.5-1.5 g deltamethrin per hectare). The highest label rate is recommended for dense vegetation and when targeting difficult to

control species of mosquitoes. Subsequent applications can be made if mosquitoes continue to be a problem. DO NOT reapply more than once every 3 days. DO NOT exceed 10 applications per year.

**When to apply:**

For best results, apply when mosquitoes 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 1.6 kilometres per hour (KPH).

**Application Equipment:**

DO NOT apply using aerial application equipment. Apply DELTAGARD 20EW with truck- or vehicle-mounted non-thermal Ultra Low Volume (ULV) sprayers to control adult mosquitoes. DO NOT APPLY using a handheld or automated, portable or backpack ULV sprayer, mist-blower, and/or fogger machine, or airblast equipment.

Droplet Size Determination For Ground Application Equipment:

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 truck- or vehicle mounted non-thermal ULV application equipment capable of producing the required droplet spectrum. Base the treatment area (hectares) calculations on the equipment manufacturer's recommended swath width. Do not exceed 75 mL DELTAGARD 20EW per hectare (1.5 grams of deltamethrin per hectare) 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 91.5 metre swath width:

Application Rate	Vehicle Speed	Flow Rate in litres per minute				
		Undiluted	Diluted 1:1	Diluted 1:2	Diluted 1:3	Diluted 1:4
<b>25 mL DELTAGARD 20EW per hectare</b>  <b>(0.5 g deltamethrin per hectare)</b>	8 KPH	0.03	0.06	0.09	0.12	0.15
	16 KPH	0.06	0.12	0.18	0.24	0.30
	24 KPH	0.09	0.18	0.27	0.36	0.45
	32 KPH	0.12	0.24	0.36	0.48	0.60
<b>50 mL DELTAGARD 20EW per hectare</b>  <b>(1.0 g deltamethrin per hectare)</b>	8 KPH	0.06	0.12	0.18	0.24	0.30
	16 KPH	0.12	0.24	0.36	0.48	0.60
	24 KPH	0.18	0.36	0.54	0.72	0.90
	32 KPH	0.24	0.48	0.72	0.96	1.20
<b>75 mL DELTAGARD 20EW per hectare</b>  <b>(1.5 g deltamethrin per hectare)</b>	8 KPH	0.09	0.18	0.27	0.36	0.45
	16 KPH	0.18	0.36	0.54	0.72	0.90
	24 KPH	0.27	0.54	0.81	1.08	1.35
	32 KPH	0.36	0.72	1.08	1.44	1.80

**Mixing Instructions:**

DELTAGARD 20EW must be applied with clean and properly calibrated equipment. Prior to adding DELTAGARD 20EW, ensure that the spray tank, filters and nozzles have been thoroughly cleaned and that agitation system is properly working.

SHAKE OR AGITATE THOROUGHLY BEFORE USE. Product (either diluted or undiluted) must be thoroughly agitated before use.

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

Fill sprayer half-full with clean water. Add product while agitating. Add the remaining amount of water.

Proper agitation should be maintained while applying to ensure a uniform spray mixture.

**RESISTANCE MANAGEMENT RECOMMENDATIONS**

For resistance management, DELTAGARD 20EW contains a Group 3A insecticide. Any insect population may contain individuals naturally resistant to DELTAGARD 20EW and other Group 3A insecticide. The resistant individuals may dominate the insect population if this group of insecticides is used repeatedly in the same area. Other resistance mechanisms that are not linked to site of action but are specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance:

- Where possible, rotate the use of DELTAGARD 20EW or other Group 3A insecticides with different groups that control the same pests.
- Insecticide use should be based on an IPM program that includes scouting and record keeping, and considers cultural, biological and other chemical control practices.
- Monitor treated pest populations for resistance development.

- Contact your local extension specialist for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance contact Bayer CropScience Inc at 1-888-283-6847.

DELTAGARD is a registered trademark of Bayer.

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