GROUP 28 INSECTICIDE

# **VERIMARK®** Insecticide

SUSPENSION FOR SALE FOR USE ON POTATOES, BRASSICA VEGETABLES AND ROOT VEGETABLES (except sugar beet)

#### **AGRICULTURAL**

# READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

ACTIVE INGREDIENT: Cyantraniliprole 200 g/L

Contains 1,2-Benzisothiazolin-3-one at 0.0193 % as a preservative -ORContains 5-Chloro-2-methyl-2H-isothiazol-3-one at 0.00085%, 2-Methyl-2H-isothiazol-3-one at 0.00028% and Bronopol at 0.0088% as a preservative

REGISTRATION NO 30892 PEST CONTROL PRODUCTS ACT

**NET CONTENTS**: 0.5 - 3.79 - 100 LITRES

FMC Corporation 2929 Walnut Street Philadelphia, PA 19104 1-833-362-7722

# PRECAUTIONS:

- KEEP OUT OF REACH OF CHILDREN.
- Wear a long-sleeved shirt, long pants and chemical resistant gloves while mixing /loading, applying and during clean up and repair.
- Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE).
   If no such instructions for washables are available, use detergent and hot water. Keep and wash PPE separately from other laundry.
- Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
   Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Do not enter or allow worker entry into treated areas during the restricted entry interval of 12 hours.

### 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 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 further treatment advice.

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

For medical emergencies call 1-800-331-3148 (24 hours).

TOXICOLOGICAL INFORMATION: Treat symptomatically.

### **ENVIRONMENTAL HAZARDS:**

- Toxic to aquatic organisms.
- DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.
- Toxic to bees. This product is systemic and bees can be exposed to product residues in flower, leaves, pollen and/or nectar resulting from soil applications. However, when this product is applied and used according to label directions, risk to bees is expected to be negligible.
- To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.
- Avoid application when heavy rain is forecast.
- Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

# STORAGE:

Store product in original container only, away from other pesticides, fertilizer, food or feed. Not for use or storage in or around the home. Keep container closed. To prevent contamination store this product away from food or feed.

### **DISPOSAL:**

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.

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 clean-up 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. The user assumes the risk to persons or property that arises from any such use of this product

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# **GENERAL INFORMATION**

VERIMARK™ Insecticide is a suspension concentrate that can be applied as an in-furrow spray, transplant water treatment or banded surface application, to control many important insect pests. VERIMARK® Insecticide is specially formulated for maximum performance by soil application. VERIMARK® Insecticide is mixed with water for application.

VERIMARK® Insecticide provides early season control of listed insect pests. The length of control will vary depending on the application rate and local conditions. Fields should be scouted regularly. If insect pest populations exceed local threshold levels, apply a registered foliar insecticide.

VERIMARK® Insecticide is a member of the anthranilic diamide class of insecticides which act on insect ryanodine receptors. After exposure to VERIMARK® Insecticide, affected insects will rapidly stop feeding, become paralyzed, and typically die within 1 - 3 days. When pest populations are expected to be high, use the highest listed application rate for that pest.

#### **DIRECTIONS FOR USE**

### **POTATOES**

SITE	PEST	RATE VERIMARK®	SPECIFIC DIRECTIONS
		Insecticide	
POTATOES	Colorado potato beetle	In-furrow application:	In-furrow application: Apply as a narrow band in-furrow. For
	Potato flea beetle (early season control of spring adults)	6.75 to 9 mL/100 m of row  or  750 to 1000 mL/ha	best results, direct spray on the seed pieces in the furrow. Thorough coverage of seed pieces is important to obtain
		(based on 90 cm row spacing)	optimum control.
			Colorado potato beetle resistance management: DO NOT apply any Group 28 insecticide for Colorado potato beetle control if VERIMARK® Insecticide was used at planting as an in- furrow treatment.

# **RESTRICTIONS AND PRECAUTIONS: Potatoes**

- Do not make more than 1 soil application per season.
- Do not exceed a total of 1.5 litres VERIMARK® Insecticide per ha per season. Use only a closed treatment system.
- Do not make a subsequent foliar application of any Group 28 insecticide for a minimum of 60 days following an in-furrow application of VERIMARK® Insecticide.

Root Vegetables (except Sugar Beet) - Crop Group 1B

SITE	PEST	RATE VERIMARK® Insecticide	SPECIFIC DIRECTIONS
ROOT VEGETABLES (except sugar beet)  Beet, garden, Burdock, Carrot, Celeriac (celery root) Chervil, Chicory, Ginseng, Horse radish**	Flea beetle (early season damage reduction)	6.75 to 9 mL/100 m of row  or  750 to 1000 mL/ha (based on 90 cm row spacing)	In-furrow application: Apply as a narrow band in-furrow. For best results, direct spray on the seed in the furrow. Thorough coverage of seed is important to obtain optimum control.
Parsley, turnip-footed, Parsnip, Radish** Radish, oriental** Rutabaga, Salsify, Salsify, black Salsify, spanish Skirret, Turnip	Cabbage maggot	10 – 15 mL/ 100 m of row	

<sup>\*\*</sup>Seasonal use rate based on 100 m of row

# **RESTRICTIONS AND PRECAUTIONS: Root Vegetables (except sugar beet)**

- Do not make more than 1 soil application per season.
- Apply only when there is low risk of drift to areas of human habitation or activity such as houses, cottages, schools and recreational areas, taking into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.
- Do not exceed a total of 15 ml of VERIMARK® Insecticide per 100m of row per season or 1.7 L/ha (based on 90 cm row spacing).
- Do not apply less than 21 day before harvest. Observe a 21-day PHI.
- Do not make a subsequent foliar application of any Group 28 insecticide for a minimum of 60 days following an in-furrow application of VERIMARK® Insecticide.

### **BRASSICA VEGETABLES - Crop Group 5**

SITE	PEST	RATE VERIMARK® Insecticide	SPECIFIC DIRECTIONS
BRASSICA VEGETABLES Broccoli,	Imported cabbage worm	750 to 1000 mL/ha	Apply specified dosage as an infurrow spray, in the
Broccoli (Chinese), Broccoli raab,	Diamondback moth		transplant water, or as a banded surface
Brussels Sprouts, Cabbage,	Cabbage looper		application at the time of transplanting.
Cabbage (Chinese,	Flea beetles (early		
bok choy), Cabbage (Chinese, napa),	season damage reduction)		
Cabbage (Chinese	Swede Midge (early		
mustard, gai choy), Cauliflower,	season damage reduction)		
Cavalo broccolo,			
Collards, Kale, Kohlrabi,	Cabbage Maggot	10 – 15 mL/ 100 m of row	
Mizuna,		Or	
Mustard Greens, Mustard Spinach,		1,100 to 1,700 mL/ Ha	
Rape Greens		(based on 90 cm row spacing)	

# **RESTRICTIONS AND PRECAUTIONS: Brassica Vegetables**

- Do not make more than 1 soil application per season.
- Do not exceed a total of 1.7 litres of VERIMARK® Insecticide per ha per season.
- Apply only when there is low risk of drift to areas of human habitation or activity such as houses, cottages, schools and recreational areas, taking into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.
- Do not make a subsequent foliar application of any Group 28 insecticide for a minimum of 60 days following any soil application of VERIMARK® Insecticide.

### **SOIL APPLICATIONS:**

VERIMARK® Insecticide must be applied in a manner that ensures the product is in the root zone. VERIMARK® Insecticide is designed to optimize root uptake. When applied to the root zone before, during, or soon after sowing or transplanting, VERIMARK® Insecticide prevents feeding of early season pests listed above. Unless directed otherwise in the specific crop sections of this label, only one soil application of VERIMARK® Insecticide may be made per crop season.

# In-Furrow Spray at Planting:

Apply as a narrow band spray into the furrow at the seeding depth.

# Transplant water treatment:

Transplants should be adequately watered before transplanting. Apply at transplanting in a minimum of 45 mL of treatment solution per transplant. Ensure water volume is sufficient to thoroughly wet the root zone.

#### Surface Band at Planting:

Apply as a narrow (5 cm or less) surface band spray above the seed line at planting. Incorporate surface band application within 24 hours of application using sufficient irrigation (usually 1.25 – 2.5 cm of water) to reach the seeding depth.

#### MIXING INSTRUCTIONS:

Application equipment must be clean and free of previous pesticide deposits before applying VERIMARK® Insecticide. Always add the VERIMARK® Insecticide to water, never put VERIMARK® Insecticide into a dry tank or other mixing equipment without first adding water. Mix thoroughly to fully disperse the insecticide; once dispersed continued agitation is required. Use mechanical or hydraulic means; do not use air agitation. Spray mix should not be stored overnight in spray tank.

# Acidification of Spray Tank:

All soil applications of VERIMARK® Insecticide should be adjusted to approximately pH 4 - 6. For at-plant soil applications, adjust the pH of the application spray tank using a commercially available acidifier. Adjust the pH of the application solution after all products being applied have been added to the tank. Once prepared, an application solution may be held for up to 8 hours before starting the application. Do not store the application solution overnight.

#### SPRAYER CLEANUP:

Prior to application, start with clean, well maintained application equipment. Immediately following application, thoroughly clean all spray equipment to reduce the risk of forming hardened deposits which might become difficult to remove.

Drain spray equipment. Thoroughly rinse sprayer and flush hoses and nozzles with clean water. Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment. Do not clean near wells, water sources or desirable vegetation.

Dispose of waste rinse water in accordance with local regulations.

### PRECAUTIONS:

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- Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE). If no such instructions for washables are available, use detergent and hot water. Keep and wash PPE separately from other laundry.
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- To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.
- Avoid application when heavy rain is forecast.
- Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

#### **ROTATIONAL CROP RESTRICTIONS:**

Recommended Plant-Back Intervals (PBI) for Rotational Crops.

PBI	CROPS
0 days	Crop Group 1C (Tuberous and corm vegetables); Crop Group 3-07 (Bulb vegetables); Crop Group 4 (Leafy vegetables; except <i>Brassica</i> vegetables); Crop Group 5 ( <i>Brassica</i> (Cole) leafy vegetables); Crop Group 8-09 (Fruiting vegetables); Crop Group 9 (Cucurbit vegetables); Crop Group 13-07B (Bushberry subgroup); Crop Group 20 (Oilseed) Crop Group 1B: Root vegetables
30 days	; Crop Group 6 (Legume vegetables (succulent or dried); Crop Group 7 (Foliage of legume vegetables); Crop Group 13-07G (Lowgrowing berry subgroup); Crop Group 15 (Cereal grains); Crop Group 16 (Forage, fodder, and straw of cereal grains); Crop Group 17 (Grass forage, fodder, and hay); Crop Group 18 (Nongrass animal feeds: Forage, fodder, straw and hay)
365 days	Other crops

### **RESISTANCE-MANAGEMENT RECOMMENDATIONS:**

For resistance management, please note that VERIMARK® Insecticide contains a Group 28 insecticide. Any insect population may contain individuals naturally resistant to VERIMARK® Insecticide and other Group 28 insecticides. The resistant individuals may dominate the insect population if this group of insecticides is used repeatedly in the same fields. 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 VERIMARK® Insecticide or other Group 28 insecticides with different groups that control the same pests.
- Avoid using the same mode of action (same IRAC group number) on consecutive generations of insect pests.
- For short cycle crops (< 50 days), alternate to different modes of action during subsequent planting at the same farm location.
- Use tank mixtures with insecticides from a different group when such use is permitted.

- 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 or certified crop advisors 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 FMC Corporation at 1-833-362-7722.

### STORAGE:

Store product in original container only, away from other pesticides, fertilizer, food or feed. Not for use or storage in or around the home. Keep container closed. To prevent contamination store this product away from food or feed.

#### **DISPOSAL:**

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:

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