

UBG WRAP

GROUP	2A	INSECTICIDE
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THIONEX 50 W

Wettable Powder Insecticide

COMMERCIAL

DANGER POISON

READ THE LABEL BEFORE USING

VERY TOXIC TO FISH

GUARANTEE: Endosulfan 50%

REGISTRATION NO. 14617

PEST CONTROL PRODUCTS ACT

UNITED AGRI PRODUCTS CANADA INC.

789 Donnybrook Drive

Dorchester, Ontario N0L 1G5

NET CONTENTS: 1 kg

16292

09/04

DIRECTIONS FOR USE

Unless otherwise mentioned, apply when insects first appear and repeat as required to maintain control. Rates "per 1000 litres" are on basis of dilute spray. Rates "per hectare" for tree fruits are based on mature trees. For vegetables and small fruits, use sufficient water for thorough coverage, depending on foliage development and spray equipment. Thorough wetting of all plant parts, which are to be treated, is essential for good results. Agitate continuously.

Apply by ground only. DO NOT apply by air.

RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, please note that ENDOSULFAN 50 W Insecticide contains a Group 2A insecticide/acaricide. Any insect/mite population may contain individuals naturally resistant to ENDOSULFAN 50 W Insecticide and other Group 2A insecticides/acaricides. The resistant individuals may dominate the insect/mite population if this group of insecticides/acaricides are 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/acaricide resistance:

- Where possible, rotate the use of ENDOSULFAN 50 W Insecticide or other Group 2A insecticides/acaricides with different groups that control the same pests in a field.
- Avoid application of more than the indicated number of sprays of ENDOSULFAN 50 W Insecticide or other insecticides/acaricides in the same group in a season.
- Use tank mixtures with insecticides/acaricides from a different group when such use is permitted.
- Insecticide/acaricide use should be based on an IPM program that includes scouting, 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 and to report suspected resistance, contact the Technical Service, United Agri Products, 1-800-265-4624 or at www.uap.ca.

CROPS	INSECTS	RATE/HECTARE
APPLE, PEAR (EASTERN CANADA)	Green apple aphid, Rosy apple aphid, Pearleaf blister mite, Tarnished plant bugs,	1 kg/1000 L 4.5 kg/ha
	Apply when local government spray letters or calendars recommend spraying for these insects. Do not make more than 2 applications after Calyx.	
	White Apple Leafhopper, Potato Leafhopper	2.6 kg/ha
	Apply late July, early August when young nymphs are at threshold levels. One application per year.	
APPLE, PEAR (BRITISH COLUMBIA)	Rust mite, Pear psylla, Codling moth	1.5 kg/1000 L 6.75 kg/ha
	Apply when local government spray letter or calendars recommend spraying for these insects. Do not apply within 15 days of harvest.	
	Green apple aphid, Leafhopper, Rosy apple aphid, Lygus bugs	750 g/1000 L 3.25 kg/ha
	White Apple Leafhopper, Potato Leafhopper	2.6 kg/ha
APRICOT, CHERRY, PEACH, PLUM (EASTERN & WESTERN CANADA)	Apply late July, early August when young nymphs are at threshold levels. One application per year.	
	Apply according to provincial recommendations.	
	Rust mite, Woolly apple aphid, Pearleaf blister mite	1 kg/1000 L 4.5 kg/ha
	Apply when local government spray letters or calendars recommend spraying for these insects. Do not apply within 15 days of harvest.	
GRAPE	Peach tree borer (Root borer) Lesser peach tree borer	1.5 kg/1000 L
	Make 3 applications in Eastern Canada (2 applications in B.C.) when local government spray calendar recommends spraying. Spray thoroughly all bark areas on trunk and main scaffold limbs. Apply coarse spray with a gun at 2000-2700 kPa pressure. Avoid spraying on the fruit. Do not apply within 15 days of harvest.	
	Black cherry aphid, Peach silver mite, Plum rust mite, Green peach aphid, Mealy plum aphid, Twig borer, Plant bugs, Stink bugs, Leafhopper and Eye-spotted budmoth.	0.75-1 kg/1000 L 3.25-4.5 kg/ha
	For Peach silver mite use the higher rate. Apply at the time and rates as recommended in local government calendar or spray letters. Do not make more than 2 applications during the fruiting season. Do not apply within 15 days of harvest.	
STRAWBERRY	Phylloxera (leaf form) in Ontario	1 kg/1000 L
	To control the leaf-form of Phylloxera, apply in regular post-bloom spray and repeat in the first cover spray. Spray 2500 L/ha of spray as thorough coverage is necessary for good control. Do not apply later than 30 days before harvest.	
POTATO	Cyclamen mite	2-4 kg/ha
	Apply 4000-8000 L/ha depending on foliage development before bud formation in spring; repeat after harvest if mites present.	
	Tarnished plant bug, Strawberry aphid, Spittle bug	2 kg/1000 L
TOMATO, PEPPER, EGGPLANT	Apply 2000 L/ha. For plant bug, apply at first bloom and repeat 10 days later. For aphid, apply when noticed, repeat as necessary. For Spittle bug, apply when eggs hatch. ENDOSULFAN is moderately toxic to bees and can be safely applied in early morning or evenings when bees are not working in the field. Do not apply within 7 days before harvest.	
	Aphid, Colorado potato beetle, Potato flea beetle, Tuber flea beetle, Leafhopper,	1.1-1.5 kg/ha
	Tarnished plant bug	
TOMATO, PEPPER, EGGPLANT	Apply when insects first appear, repeat as necessary to maintain control. For Tarnished plant bug, use 1.5 kg/ha. May be applied up to the day of harvest. Do not ensile or feed crop refuse (vines, tops, stocks or threshings) to livestock.	
	Aphid, Hornworm, Colorado potato beetle, Flea beetle, pepper maggot	1.1-2.25 kg/ha
	Apply lower rate when insects first appear, repeat as required. Spray plants thoroughly, also underside of leaves.	
EGGPLANT	Do not apply within 2 days of harvest. If applied at 2.25 kg/ha, the Tomato fruit worm is also controlled.	

Geese may be used for weeding after 24 hours following application of ENDOSULFAN 50W. Such geese may be used for human consumption after 2 months following the last application.

CROPS	INSECTS	RATE/HECTARE
TOMATO, CUCUMBER (Greenhouse)	Whitefly, Aphid Spray plants thoroughly when insects first appear, repeat as necessary. Wear suitable mask or respirator. Do not apply within 2 days of harvest	1.1 kg/ha
CUCUMBER, MELON, SQUASH, PUMPKIN	Aphid, Cucumber beetle, Squash vine borer, Potato flea beetle. Apply when aphids and beetles first appear and repeat as required. For squash vine borer make 4 applications at 7 day intervals, starting late June, and thoroughly spray the base and stems of plants. Do not apply within 2 days of harvest. Tarnished Plant Bug Ground application: mix in sufficient water for good coverage. Apply when pest first observed, repeat as required.	1.1 kg/ha 1.1 kg/ha
CABBAGE, CAULIFLOWER, BROCCOLI, BRUSSELS SPROUTS	Aphid, Flea beetle, Imported cabbage worm, Cabbage looper, Diamondback moth (larvae) For all loopers use 1.75 kg and use drop pipes to spray under side of foliage. Use the 1.1 kg rate only for small worms and flea beetles; for large worms and aphids use the 1.75 kg rate. Do not apply later than 7 days before harvest. Do not feed crop refuse to livestock. Do not apply more than 3 times per season on these crops.	1.1-1.75 kg/ha 125-250 g/1000 L
CELERY, SPINACH, HEAD LETTUCE	Aphid, Cabbage looper, Imported cabbage worm Trim celery at harvest. Do not apply more than once on spinach or 3 times on lettuce. Do not apply within 14 days of harvest. Do not feed crop refuse to livestock. Do not apply to green house lettuce.	1.75 kg/ha
ORNAMENTALS (Outdoors & Greenhouse)	Aphids, Whitefly, Cyclamen mite, Black vine weevil, Rose chafer, Spruce gall aphid, Elm leaf beetle Do not use on birch trees. Cyclamen mite requires very thorough application. On Chrysanthemums, apply before flowering for best results. DO NOT treat Bonnafon mums and geraniums in the greenhouse or mum cuttings within one month of planting. When applying in greenhouse wear suitable mask or respirator. For Black vine weevil on Japanese yew, use 1.5 kg/1000 L and spray lower branches and soil in early July. For Spruce gall aphid apply in 1st half of May.	1 kg/1000 L

COMPATIBILITY

Endosulfan is compatible with most commonly used insecticides and fungicides, except Bordeaux mixture and hydrated lime.

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN. Hazardous if swallowed, inhaled or absorbed through the skin. After handling, wash thoroughly with soap and water before drinking or smoking and change to clean clothing. Do not apply or allow to drift to areas occupied by unprotected persons and animals or to streams, lakes or ponds to protect wildlife: THIS PRODUCT IS VERY TOXIC TO FISH. Avoid contamination of feed or food, including such crops on which residue is unsafe. Do not contaminate fertilizer, seed and like commodities. Causes severe injury to Concord grapes. Some injury may occur to lima beans, geraniums and chrysanthemums. When spraying in greenhouses and during commercial or prolonged exposure in spray-mixing and loading operations, wear synthetic rubber gloves and a suitable mask or respirator for ENDOSULFAN protection, such as American Optical Respirator 5058 or Wilson Agritox Respirator. Avoid breathing dust.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., contact 1-866-375-4648 or www.cropro.org/.

FIRST AID

IF SWALLOWED, induce vomiting by giving a glass of warm water and touching back of throat with finger or blunt object; repeat until vomit fluid is clear. Rush patient to nearest hospital taking this labelled container with you or contact a poison control centre immediately. IF ON SKIN, remove contaminated clothing and wash skin with soap and water. IF IN EYES, flush with plenty of water for 15 minutes and go to nearest hospital at once or contact a poison control centre immediately.

Take container, label or product name and Pest Control Product Registration number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION

Endosulfan is a central nervous system stimulant. Symptoms of poisoning are nausea, headache, general feeling of being unwell, followed by generalized convulsion. There is no specific antidote. Use saline cathartics and gastric lavages. Amobarbital-sodium or thiopental-sodium may be given intravenously for convulsion. Do not give stimulants.

DISPOSAL

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Follow provincial instruction for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
4. Dispose of the container in accordance with provincial requirements.
5. 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 control product is to be used only in accordance with the directions on this label. It is an offence under the *Pest Control Products Act* to use a control product under unsafe conditions.

NOTICE TO BUYER: Seller's guarantee shall be limited to the terms set out on the label and, subject thereto, the buyer assumes the risk to persons or property arising from the use or handling of this product and accepts the product on that condition.