

KONTOS[®] Insecticide

For control of aphids and whiteflies on greenhouse cucumbers, tomatoes, peppers, and eggplants
and control of aphids on greenhouse lettuce

For control of whitefly (including *Bemesia* spp), Western flower thrips, Green peach aphid, Citrus mealybug, Euonymus scale and spider mites in outdoor and greenhouse grown ornamentals (except conifers)

COMMERCIAL

GUARANTEE: Spirotetramat..... 240 g/L

SUSPENSION

Contains 1,2-benzisothiazolin-3-one at 0.04%,
5-chloro-2-methyl-4-isothiazolin-3-one at 0.001% and 2-methyl-4-isothiazolin-3-one at 0.0004%
as preservatives.

REGISTRATION NO. 29567
PEST CONTROL PRODUCTS ACT

READ THE LABEL BEFORE USING

POTENTIAL SKIN SENSITIZER

NET CONTENTS : __ Litres

Product Information: 1-888-283-6847
www.bayercropscience.ca

Bayer CropScience Canada Inc.
Suite 200, 160 Quarry Park Blvd. S.E.
Calgary, AB, T2C 3G3
Telephone: 1-888-283-6847

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

TABLE OF CONTENTS:		Section Number
GENERAL INFORMATION	Notices.....	1
	The Product	2
SAFETY AND HANDLING	Precautions, Protective Clothing and Equipment.....	3
	First Aid and Toxicological Information.....	4
	Environmental Hazards	5
	Storage.....	6
	Disposal	7
DIRECTIONS FOR USE	Crop and Pest.....	8
	Mixing Instructions	9
	Pre-harvest Interval	10
	Resistance Management Recommendations	11

GENERAL INFORMATION

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

Section 2: THE PRODUCT

KONTOS Insecticide is a Suspension Concentrate formulation. Following application to plant foliage, KONTOS Insecticide is fully systemic, moving through phloem and xylem to all plant tissues including new shoot, leaf and root growth. Application should be timed to coincide with an early threshold level in developing insect populations. KONTOS Insecticide can be applied by ground application equipment.

SAFETY AND HANDLING

Section 3: PRECAUTIONS, PROTECTIVE CLOTHING AND EQUIPMENT

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN

Harmful if swallowed or absorbed through skin. Potential skin sensitizer. Avoid contact with skin or clothing. Prolonged or frequent repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PROTECTIVE CLOTHING AND EQUIPMENT:

Mixers and loaders must wear long-sleeved shirt, long pants, chemical resistant gloves, and shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, 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.
- Remove Personal Protective Equipment immediately after handling this product.
- Wash the outside of gloves before removing.
- As soon as possible, wash thoroughly and change into clean clothing.

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., visit CropLife Canada's web site at:

www.croplife.ca.

Section 4: 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">• Call a poison control center or doctor immediately for treatment advice.• 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 in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
If on skin or clothing	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15 to 20 minutes.• Call a poison control center or doctor for treatment advice.

TOXICOLOGICAL INFORMATION:

Note to Physician: No specific antidote is available. Treat patient symptomatically

Section 5: ENVIRONMENTAL HAZARDS

TOXIC to aquatic organisms.

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.

TOXIC to bee brood. Bee Brood may be exposed to residues in/on pollen and nectar brought back to the hive by bees foraging on flowering crops and weeds. **DO NOT** apply this product during crop flowering period or when flowering weeds are present in the treatment area. Minimize spray drift to habitats close to the application site.

--

Greenhouse Use: Toxic to bee brood. Not acutely toxic to adult bees. Residues in/on pollen and nectar may harm bee brood. If maintaining brood, avoid application during flowering.

This product is TOXIC to certain beneficial insects.

Minimize spray drift to reduce harmful effects on beneficial insects in habitats next to the application site, such as hedgerows and woodland.

TOXIC to non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE

Section 6: STORAGE

To prevent contamination, store this product away from food or feed.

KONTOS Insecticide is packaged in poly-ethylene containers. Do not allow product or containers to freeze. Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If container is leaking, invert to prevent leakage. If the container is leaking or material is spilled for any reason or cause, carefully dam up spilled material to prevent runoff. Do not walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed for pesticides below. In spill or leak incidents, keep unauthorized people away.

Section 7: DISPOSAL

For Recyclable Containers: 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.

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.

DIRECTIONS FOR USE

Section 8: Crop and Pest

DIRECTIONS FOR USE FOR GREENHOUSE VEGETABLES

NOTE TO USER: READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATIONS (BELOW): The DIRECTIONS FOR USE for this product for the uses described below were developed by persons other than Bayer CropScience and accepted for registration by Health Canada under the User Requested Minor Use Label Expansion program. Bayer CropScience itself makes no representation or warranty with respect to performance (efficacy) or crop tolerance (phytotoxicity) claims for this product when used on the crops listed below. Accordingly, the Buyer and User assume all risks related to performance and crop tolerance arising, and agree to hold Bayer CropScience harmless from any claims based on efficacy or phytotoxicity in connection with the uses described below.

Crop	Pests controlled	Rate	Remarks
Greenhouse lettuce	Aphids	43 to 60 mL Kontos/100 L water with a maximum of 72 g a.i./ha per application	Rate selected for use should depend on infestation level of those pests. Pre-Harvest Interval (PHI): 7 days. Minimum interval between applications: 7 days. Re-apply only when monitoring indicates it is

			<p>necessary.</p> <p>Maximum Kontos Insecticide allowed per crop cycle: 900 ml /ha (216 g ai/ha)</p> <p>Maximum number of application per cropping cycle: 3</p>
Greenhouse cucumbers, tomatoes, peppers, and eggplants	Aphids Whiteflies	<p>Maximum use rate per single application of Kontos Insecticide is 300 ml/ha (72 g a.i./ha)</p> <p>Spray mixture dilution is 30 to 42 mL Kontos Insecticide / 100 Liters of water. Use appropriate spray volume for adequate crop foliage spray coverage. Spray crop to wet not to drip.</p> <p>Do not exceed a spray volume of 712 L/ha (42 ml concentration) – 1000 L/ha (30 ml concentration). Kontos Insecticide can only be used on plant growth stages for which thorough coverage can be achieved with the maximum spray volume allowed.</p>	<p>Use the higher concentration for higher pest infestation levels.</p> <p>Pre-Harvest interval (PHI): 3 days Interval between applications: at least 7 – 14 days.</p> <p>Maximum Kontos Insecticide allowed per crop cycle: 900 ml /ha (216 g ai/ha)</p> <p>Maximum number of application per cropping cycle: 3</p>

NOTE:

For best results, tank mix Kontos Insecticide with Agral 90 (a non-ionic spray adjuvant / additive having spreading and penetrating properties) to maximize leaf uptake and systemicity of the active ingredient within treated plants. Mix Agral 90 at 150 mL per 1000L of water and always test mixture in a small area to ensure no risk of phytotoxicity prior to use. Use of any blended adjuvant is not permitted.

DO NOT apply more than two (2) applications of Kontos Insecticide before alternating to one or more applications of a registered insecticide/miticide with a different mode of action.

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

DO NOT allow effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waters.

DO NOT tank-mix Kontos Insecticide with sulfur.

DIRECTIONS FOR USE FOR ORNAMENTALS

NOTE TO USER: READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATIONS (BELOW): The DIRECTIONS FOR USE for this product for the uses described below were developed by persons other than Bayer CropScience and accepted for registration by Health Canada under the User Requested Minor Use Label Expansion program. Bayer CropScience itself makes no representation or warranty with respect to performance (efficacy) or crop tolerance (phytotoxicity) claims for this product when used on the crops listed below. Accordingly, the Buyer and User assume all risks related to performance and crop tolerance arising, and agree to hold Bayer CropScience harmless from any claims based on efficacy or phytotoxicity in connection with the uses described below.

Kontos™ Insecticide is for control of Whiteflies (family: Aleyrodidae), including Q-strain Whitefly, Western Flower Thrips, Green Peach Aphid, Spider Mites, Euonymus Scale and Citrus Mealybug. For optimum performance, applications should be made prior to development of heavy populations.

CROP TOLERANCE / USE RESTRICTIONS:

Kontos™ Insecticide has been evaluated for phytotoxicity on a wide range of ornamental plants. However, due to the large number of species, varieties and cultivars of ornamental plants, it is impossible to test every plant species for tolerance to Kontos™ Insecticide. Prior to commercial use, determine if Kontos™ Insecticide is safe by testing on a small scale of plant species first. Kontos™ Insecticide is not recommended for use on the following plant species, varieties and cultivars: Geraniums (*Pelargonium spp.*), Orchids, Hoya, Dracaena, Cordyline, Schefflera, Neanthebella palm and Ferns. Do not make more than one application per season to Hydrangea, Impatiens species, Crotons (*Codiaeum spp.*), Fuschia hybrids, Petunia, Peperomia, Stock, or Cyclamens (*Cyclamen spp.*).

APPLICATIONS TO OUTDOOR GROWN ORNAMENTALS (EXCEPT CONIFERS)

Foliar Application Rates for Use on Outdoor Ornamentals (Except Conifers)

Crop	Pest	Dosage	Comments
Flowering Plants	Whiteflies	13 – 26 mL product/100L	Apply when pests are first noticed. Make enough spray solution to spray foliage to wet. For all pests spray application
Foliage Plants	Western Flower Thrips		
Ground Covers	(<i>Frankiniella</i>)		

Shrubs Nursery Trees – including non-bearing fruit and nut trees (Non-bearing fruit and Nut trees are those trees that will not bear fruit or nuts for one year after application) Note: SEE CROP TOLERANCE / USE RESTRICTIONS ABOVE	<i>occidentalis</i> (suppression only)		intervals are 14 - 21 days with a maximum of 2 applications per growing cycle.
	Citrus Mealybug (<i>Planococcus citri</i>)		For thrips:make applications preventatively. Application to heavy thrips populations may not prevent economic damage to plants.
	Spider Mites (<i>Tetranychidae spp</i>)	13 mL product/100L	For mealybug - If populations are heavy, make 2 foliar applications at 14-21 day interval to control mealybug larvae that emerge after the first application. Do not apply until after petal fall to non-bearing stone fruit, pome fruit, and tree nuts Maximum spray volume of 1000 L/ha

For foliar insect control in outdoor container grown or field grown ornamentals. Do not apply more than 520 mL of product per Ha per year. Maximum of 2 applications per crop cycle. Standard spray volume for an ornamental crop 30 - 40 cm or less in height is 1000L/Ha. Highest dosage rate listed below delivers 266 ml product (62.4 g ai) / 1000 L or Ha).

For best results, tank mix Kontos Insecticide with Agral 90 (a non-ionic spray adjuvant / additive having spreading and penetrating properties) to maximize leaf uptake and systemicity of the active ingredient within treated plants. Mix Agral 90 at 150 mL per 1000L of water and always test mixture in a small area to ensure no risk of phytotoxicity prior to use. Use of any blended adjuvant is not permitted. DO NOT tank-mix Kontos™ Insecticide with sulfur

Drench Application Rates for Use on Outdoor Grown Ornamentals (Except Conifers)

Crop	Pest	Dosage	Comments
Foliage Plants Ground Covers Note: SEE CROP TOLERANCE / USE RESTRICTIONS ABOVE	Whiteflies	2.5 – 5.0 mL product/100 L of growing media	Exact drenching volumes are dependent upon pot size and volume, potting medium, plant type and pest pressure. Apply product in sufficient volume of water to wet the potting medium, without loss of liquid from the bottom of the container. Follow application with moderate irrigations when using top irrigation over the next 10 days in order to avoid loss of active ingredient from the bottom of the container.
	Western Flower Thrips (<i>Frankiniella occidentalis</i>)	5.0 - 10 mL product /100 L of growing media	
	Spider Mites (<i>Tetranychidae spp</i>)		Apply when pests are first noticed. For all pests, spray application intervals are 14 – 21 days with a maximum of 2
	Citrus Mealybug (<i>Planococcus</i>)	3.0 mL product/100 L of	

	<i>citri</i>)	growing media	applications per growing cycle.
	Green Peach Aphid (<i>Myzus persicae</i>)	2.5 mL product/100 L of growing media	For thrips: Make applications preventatively. Application to heavy thrips populations may not prevent economic damage to plants.
	Euonymus scale (<i>Unaspis euonymi</i>)	7 mL product /100 L of growing media	For mealybugs: If populations are heavy, make 2 foliar applications at 14-21 day intervals to control mealybug larvae that emerge after the first application. Maximum spray volume of 1000 L/ha

For Drench application insect control in outdoor grown containers. Do not apply more than 520 mL of product per Ha per year. Maximum of 2 applications per crop cycle. Maximum single application drench rate is 10 mL/100 L of growing media or 2.4 gai/100 L growing media.

APPLICATION INSTRUCTIONS and USE LIMITATIONS TO OUTDOOR GROWN ORNAMENTALS (EXCEPT CONIFERS)

Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature, application equipment and sprayer settings.

DO NOT apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands), estuarine/ marine habitats.

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

DO NOT allow effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waters.

Field sprayer application: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) fine classification. Boom height must be 60 cm or less above the crop or ground.

DO NOT apply by air.

BUFFER ZONES:

Use of the following spray methods or equipment DO NOT require a buffer zone: hand-held or backpack sprayer and spot treatment.

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrublands).

Method of application	Crop	Buffer Zones (meters) Required for the Protection of Terrestrial habitat
-----------------------	------	--

Field sprayer*	Outdoor Grown Ornamentals (Except Conifers)	1
----------------	--	---

*For field sprayer application, buffer zones can be reduced with the use of drift reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy, the labeled buffer zone can be reduced by 70%. When using a spray boom where individual nozzles are fitted with cone-shaped shields that are no more than 30 cm above the crop canopy, the labeled buffer zone can be reduced by 30%.

APPLICATIONS TO GREENHOUSE GROWN ORNAMENTALS (EXCEPT CONIFERS)

Foliar Application Rates for Use on Greenhouse Grown Ornamentals (Except Conifers)

Crop	Pest	Dosage	Comments
Flowering Plants Foliage Plants Ground Covers Traditional greenhouse or herbaceous or woody ornamentals being propagated and grown until transplanting into flats and plug trays in greenhouses	Whiteflies Western Flower Thrips <i>(Frankliniella occidentalis)</i> (suppression only) Citrus Mealybug <i>(Planococcus citri)</i>	13 – 26 mL product/100L	Apply when pests are first noticed. Make enough spray solution to spray foliage to wet. For all pests, spray application intervals are 14 - 21 days with a maximum of 2 applications per growing cycle. For thrips: Make applications preventatively. Applications to heavy thrips populations may not prevent economic damage to plants.
Note: SEE CROP TOLERANCE / USE RESTRICTIONS ABOVE	Spider Mites <i>(Tetranychidae)</i>	13 mL product /100L	For mealybugs: If populations are heavy, make 2 foliar applications at 14 -21 day intervals to control mealybug larvae that emerge after the first application. Maximum spray volume of 1000 L/ha

For foliar insect control in greenhouses : Do not apply more than 520 mL of product per Ha of greenhouse per year. Maximum of 1 applications per crop cycle for cut flowers and 2 applications per crop cycle for ornamentals other than cut flowers. Standard spray volume for an ornamental crop 30 - 40 cm or less in height is 1000L/ha.

For best results, tank mix Kontos Insecticide with Agral 90 (a non-ionic spray adjuvant / additive having spreading and penetrating properties) to maximize leaf uptake and systemicity of the active ingredient within treated plants. Mix Agral 90 at 150 mL per 1000L of water and always test mixture in a small area to ensure no risk of phytotoxicity prior to use. Use of any blended adjuvant is not permitted.

Drench Application Rates for Use on Greenhouse Grown Ornamentals (Except Conifers)

Crop	Pest	Dosage	Comments
Flowering Plants Foliage Plants Ground Covers	Whiteflies	2.5 – 5.0 mL product/100 L of growing media	Exact drenching volumes are dependent upon pot size and volume, potting medium and plant type and pest pressure.
Traditional greenhouse or herbaceous or woody ornamentals being propagated and grown until transplanting into flats and plug trays in greenhouses Note: SEE CROP TOLERANCE / USE RESTRICTIONS ABOVE	Western Flower Thrips <i>(Frankliniella occidentalis)</i>	5.0 - 10 mL product /100 L of growing media	Apply product in sufficient volume of water to wet the potting medium, without loss of liquid from the bottom of the container. Follow application with moderate irrigations when using top irrigation over the next 10 days to avoid loss of active ingredient from the bottom of the container.
	Spider Mites <i>(Tetranychidae)</i>		
	Citrus Mealybug <i>(Planococcus citri)</i>	3.0 mL product /100L of growing media	Apply when pests are first noticed. For all pests, spray application intervals are 14 - 21 days with a maximum of 2 applications per growing cycle.
	Green Peach Aphid <i>(Myzus persicae)</i>	2.5 mL product /100L of growing media	
	Euonymus Scale <i>(Unaspis euonymi)</i>	7 mL product/100L of growing media	For thrips: Make applications preventatively. Application to heavy thrips populations may not prevent economic damage to plants. For mealybugs: If populations are heavy, make 2 foliar applications at 14 -21 day intervals to control mealybug larvae that emerge after the first application. Maximum spray volume of 1000 L/ha
Drench applications for insect control in greenhouses : Do not apply more than 520 mL of product per Ha of greenhouse per year. Maximum of 1 applications per crop cycle for cut flowers and 2 applications per crop cycle for ornamentals other than cut flowers			

Section 9: MIXING INSTRUCTIONS

KONTOS Insecticide is subject to phase separation during storage. Vigorous shaking to re-suspend the product is required before using.

The proper mixing procedure for KONTOS Insecticide is:

- 1) Fill the spray tank 1/2 full with clean water;

- 2) Add the required amount of KONTOS Insecticide,
- 3) Fill spray tank to desired level and maintain constant agitation to ensure uniformity of spray mixture.

Section 10: PRE-HARVEST INTERVALS

Crop	Pre-harvest interval (days)
Greenhouse lettuce	7
Greenhouse cucumbers, tomatoes, peppers, and eggplants	3

Section 11: RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, please note that KONTOS Insecticide contains a Group 23 insecticide. Any insect population may contain individuals naturally resistant to KONTOS Insecticide and other Group 23 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 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 KONTOS Insecticide or other Group 23 insecticides with different groups that control the same pests in a field.
- Insecticide use should be based on an IPM program that includes scouting, record keeping, and considers cultural, biological and other chemical control practices.
- Before applying KONTOS Insecticide, correctly identify the pest and ensure economic and agronomic thresholds are met as recommended by local provincial or IPM specialists.
- 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 Bayer CropScience via internet at www.bayercropscience.ca or phone 1-888-283-6847.

KONTOS Insecticide is a registered trademark of Bayer.