

UP-Cyde® 2.5 EC

AGRICULTURAL

GUARANTEE:

Cypermethrin250 g per litre

**READ THE LABEL AND ENTIRE LEAFLET BEFORE USING
KEEP OUT OF REACH OF CHILDREN**

EYE AND SKIN IRRITANT

DANGER <<Skull and Crossbones in Hexagon>> POISON

**REGISTRATION NO. 28795
PEST CONTROL PRODUCTS ACT**

NET CONTENTS: 1 Litre

United Phosphorus, Inc.
630 Freedom Business Center, Suite 402
King of Prussia, PA 19406, USA

Tel: 609-392-8200

NOTICE TO USER

This 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.

UP-Cyde 2.5EC is a synthetic pyrethroid insecticide of low mammalian toxicity. It is a fast acting stomach and contact insecticide with no systemic or fumigant effect.

FIRST AID

IN CASE OF POISONING Contact a physician or a poison control centre **IMMEDIATELY**.

IF SWALLOWED Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

IF ON SKIN/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 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.

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

TOXICOLOGICAL INFORMATION

DANGER: This product contains petroleum distillate – vomiting may cause aspiration pneumonia. Treat symptomatically.

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN

- Fatal or poisonous if swallowed or absorbed through the skin.
- Causes eye and skin irritation. Avoid contact with skin, eyes and clothing.
- Wear long-sleeved shirt and long pants or coveralls and chemical-resistant gloves during mixing, loading, application, clean-up and repair. In addition, wear a face shield or eye goggles when mixing. Wash thoroughly after handling and before eating or smoking.
- **DO NOT** enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

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 U.S., visit CropLife Canada's website at www.cropro.org.

ENVIRONMENTAL HAZARDS

- This product is very toxic to fish and aquatic organisms.
- Do not apply when weather conditions favour drift from target area.
- Do not contaminate ponds, lakes, streams or rivers during sprayer filling operation or while spraying.
- This product is very toxic to bees; avoid spraying when bees are foraging. Spray deposit should be dry before bees commence foraging in treated crop.
- This product contains a petroleum distillate which is moderately to highly toxic to aquatic organisms. Avoid contamination of aquatic systems during application. Do not contaminate these systems through direct application, disposal or waste or cleaning equipment.

ENVIRONMENTAL PRECAUTIONS

- **Do not apply by ground equipment within 15 m of productive fisheries water or waterfowl habitats.**
- **For aerial application, an untreated border of 100 m must always be left around environmentally sensitive areas such as ponds, streams, rivers, dugouts and wetlands. If the 100 m buffer zone cannot be maintained, then ground application must be followed and the 15 m setback observed.**
- **Spray only when winds are less than 10 km per hour.**
- 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.
- Use spray nozzle tips and spraying pressure which provide small droplets.

STORAGE

Store in a cool dry well ventilated area away from foodstuffs and out of the reach of children and animals. This product is not affected by freezing.

SPILL CLEANUP

Wear appropriate protective equipment (gloves, glasses, apron) when attempting to clean up the spill. If the container is leaking, secure leak and place the container into a drum or heavy gauge plastic bag. Contact United Phosphorous Inc. for further information.

For spills and leaks; contain the liquid with dikes of inert material (soil, clay, kitty litter etc.). Absorb the spill onto inert material and shovel into a sealable waste container.

On hard surfaces - sprinkle spill area with detergent and scrub in a small quantity of water with a coarse broom. Let stand 10 minutes then absorb onto an inert material and shovel into the waste container.

On soil - remove the top 15 cm of soil in the spill area and replace with fresh soil. Dispose of all waste including scrub brush in accordance with provincial requirements.

For more information on the disposal of waste and the clean up of spills, contact the Provincial Regulatory Agency or the manufacturer. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

DECONTAMINATION AND DISPOSAL

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.

CONTAINER DISPOSAL:

FOR DISPOSAL OF PLASTIC JUGS:

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.

IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING
CALL 1-800-327-8633 (FASTMED)

DIRECTIONS FOR USE

PRECAUTIONS

- Avoid application when temperatures are above 27°C. Best control is obtained at cooler temperatures.
- Cover crop or crop treated with UP-Cyde 2.5EC must not be used as a green feed for animals except as noted for corn, rutabagas and turnips.

Ground Equipment Only

Precaution: Do not apply by ground equipment within 15 m of productive fisheries water or waterfowl habitats.

FRUITS (Apples, Pears, Peaches, Plums, Grapes, Strawberries): For all crops listed below, use sufficient water for thorough coverage. Follow provincial spray calendars for optimum timing of spray applications. Do not use more than 3 times per season. Leave a 15 metre buffer zone between water and sprayed area. **NOTE:** Repeated applications are not advised in orchards where integrated pest management is in effect because severe reductions of beneficial arthropods may result.

APPLES: Bud moth, Spotted Tentiform Leafminer, Leafrollers, Plum Curculio, Apple Maggot, Codling Moth - Apply at 400 mL/ha. For **Bud moth, Leafrollers, Plum**

Curculio and Codling Moth, apply when insects or damage first appear. For **Spotted Tentiform Leafminer**, apply at peak emergence of the first and later generations of adults. Follow recommendations for the timing of sprays as given by local agricultural authorities based on insect monitoring. For **Apple Maggot**, apply first spray when adults appear in late June or early July. Repeat sprays every 10 days. UP-Cyde 2.5EC is not to be used more than 3 times during the season. Do not apply within 7 days of harvest. **Apple Leafcurling Midge and White Apple Leafhopper** - Apply at 400 mL/ha when insects or damage first appear. **Winter Moth** - Apply at 280 mL/ha when insects or damage first appear. UP-Cyde 2.5EC is not to be used more than 3 times during the season. Do not apply within 7 days of harvest.

Tank Mix with DIPEL - (Restricted for use in Nova Scotia only): Winter Moth, mix 28 mL of UP-Cyde 2.5EC with 560 mL of DiPel[®] WP and the recommended amount of spreader sticker in 600 to 800 L water and apply to one hectare. Apply once yearly at pre-bloom (half-inch green to pink stage) using an air blast orchard sprayer.

PEARS: Pear Psylla, Nymphs and Adults (Eastern Canada) and Codling Moth - Apply at 280 mL/ha. For **Pear Psylla**, follow spray calendar recommendations when pest first appears. **Pear Psylla (British Columbia) - Overwintering Adults**: Apply at 200 mL/ha when overwintering adult densities are highest. This usually occurs between silver tip and green tip. **Post Bloom Pear Psylla, Nymphs and Adults**, apply at 400 mL/ha when signs first appear or according to provincial spray calendar recommendations. UP-Cyde 2.5EC does not control the hard shell of Pear Psylla. Do not apply within 7 days of harvest.

GRAPES: Grape Leafhopper and Grape Berry Moth - Apply at 240 mL/ha. For **Grape Leafhopper**, apply when insects first appear. For **Grape Berry Moth**, apply shortly before bloom and repeat immediately after bloom. Additional sprays should be applied as insects or damage appear. UP-Cyde 2.5EC is not to be used more than 3 times per season. Do not apply within 7 days of harvest.

STRAWBERRIES: Strawberry Weevil, Tarnished Plant Bug and Meadow Spittlebug. For **Strawberry Weevil (Clipper)**, apply 280 mL/ha when buds are first visible and repeat when first buds show white. For **Tarnished Plant Bug**, apply 400 mL/ha at first bloom and repeat 7 to 10 days after first bloom. For **Meadow Spittlebug** apply 280 mL/ha when first buds show white. UP-Cyde 2.5EC is not to be used more than 3 times per season. See ENVIRONMENTAL HAZARDS for the protection of bees. Do not apply within 7 days of harvest.

PEACHES, NECTARINES: Oriental fruit moth, Tarnished plant bug and Oak Plant bug. Apply at 280 mL/ha with 550 L of water per hectare. Do not apply more than 2 applications. Do not apply within 7 days of harvest.

PLUMS: Plum Curculio - Apply at 400 mL/ha when insects or damage first appear. Do not apply more than 3 times per season. Do not apply within 7 days of harvest.

VEGETABLES

(Asparagus, Carrots, Celery, Cole Crops, Onions, Potatoes, Rutabagas, Tomatoes, Turnips): Apply at the rates indicated for each crop listed. Use sufficient water for thorough coverage unless the water volume is specified.

ASPARAGUS: Asparagus Beetle - Apply at 140 mL/ha to spears and ferns when insects are first observed. Repeat as required. Do not apply within 1 day of harvest.

CARROTS: Carrot Rust Fly - Apply at 280 mL/ha with 550 L of water per hectare when insects are first noticed. Follow recommendations for timing of sprays as given by local agricultural authorities based on insect monitoring. Do not apply more than 3 times per season. Do not apply within 35 days of harvest.

CELERY: Potato Leafhopper - Apply at 140 mL/ha in 500 L of water per hectare when insects are first noticed. Repeat as required up to 3 applications per season. Do not apply within 7 days of harvest.

COLE CROPS (Cabbage, Cauliflower, Broccoli, Brussels Sprouts): Cabbage Looper, Imported Cabbage Worm, Diamondback Moth Larvae - Apply at 140 mL/ha. Add AGRAL 90 surfactant at 0.03% v/v (300 mL/1000 L of spray mix). Do not apply to muck soils. Use as needed at 2 week intervals up to a maximum of 3 applications per season. Leave a 3 day interval between the last spray and harvest. **Thrips** - Apply 200 mL/ha. Add AGRAL 90 surfactant at 0.03% v/v (300 mL/1000 L of spray mix). Do not apply to muck soils. Use as needed at 2 week intervals up to a maximum of 3 applications per season. Leave a 3 day interval between the last spray and harvest.

CORN: (Sweet and Field): European Corn Borer - Apply at 280 mL/ha in 325 to 450 L of water per hectare using a boom and nozzle arrangement to ensure thorough spray coverage. Spray no later than when the first feeding is seen on foliage. Repeat sprays at 4 to 7 day intervals depending on the area and corn borer numbers (consult provincial agricultural representatives). Where there are two generations, late plantings of sweet corn will require sprays from the late whorl stage until close to harvest. Do not apply more than 3 times per season. Do not apply within 5 days of harvest. **Sweet corn plant refuse from processing plants and field corn silage derived from corn treated with UP-Cyde 2.5EC at the recommended rate and spray/harvest interval may be fed to lactating dairy cattle or beef cattle.**

LETTUCE: Aster Leafhopper - Apply 200 mL/ha beginning when damage or insects are first noticed. Apply up to 4 applications at 7-14 days interval. Do not apply within 14 days of harvest.

ONIONS: Onion Maggot Flies - To control onion maggots later in the growing season or on windrow onions prior to harvest, apply at 280 mL/ha. Follow recommendations for timing of sprays as given by local agricultural authorities based on insect monitoring. **Thrips** - Apply at 280 mL/hectare in sufficient water for good coverage. Apply at 10 day

intervals as advised by local agricultural authorities. Do not apply more than 3 times per season. Do not apply within 3 days of harvest.

POTATOES: Colorado Potato Beetle, Potato Flea Beetle, Potato Leafhopper, Tuber Flea Beetle - Apply at 140 mL/ha when first signs of insects appear and damage is visible. Repeat as required up to a maximum of 3 applications per season. **Tarnished Plant Bugs:** Apply 200 mL/ha when insects appear. Repeat sprays as required. Do not apply within 7 days of harvest.

RUTABAGAS AND TURNIPS: Crucifer Flea Beetles - Apply at 200 mL/ha when insects appear and repeat as required. Do not apply within 21 days of harvest. Roots and tops may be fed to lactating dairy animals after the spray/harvest interval.

TOMATOES: Colorado Potato Beetle, Potato Flea Beetle, Potato Leafhopper - Apply at 140 mL/ha when first signs of insects appear and damage is visible. Repeat as required. Do not apply within 3 days of harvest.

FIELD CROPS:

Field Crops (Evening Primrose, Rapeseed, Mustard, Sunflowers and Tobacco) – Follow specific directions given for each crop listed. Unless otherwise indicated use sufficient water for thorough coverage.

EVENING PRIMROSE: Seed Weevil, Tarnished Plant Bug and *Microlepidoptera* spp. – Apply 280 mL in 300 L of water per ha at 2 to 3 week intervals when an insect population reaches an economic (significant) level. Apply a maximum of three applications per year.

RAPESEED (CANOLA) AND MUSTARD: Crucifer Flea Beetle - Apply 140 mL/ha when leaf injury is first noticed. **Bertha Armyworm** - Apply 200 to 280 mL/ha. Use higher rate for high infestations. Do not apply within 30 days of harvest.

SUNFLOWERS: Sunflower Beetle - Apply at 100 mL/ha in 100 to 120 L of water per hectare when insects first appear. Repeat if required. Do not apply within 70 days of harvest. **Sunflower Seed Weevil** - Apply at 100 mL/ha in 100 to 120 L of water per hectare when insects first appear. Repeat if required. Do not apply within 70 days of harvest.

TOBACCO: Cutworm (Darksided and White) Control: Tobacco (Greenhouse Plants): Mix 4.8 mL (1 teaspoonful) in 15 L of water and apply to 100 m² of plant bed. **Tobacco (Field):** For control of darksided cutworm and white cutworm, by methods given below, apply the recommended rate of UP-Cyde 2.5EC in 225 to 450 L of water per hectare using nozzle pressure of 175 to 350 kPa. Cutworm activity is greatest during the late evening and night. Application of UP-Cyde 2.5EC should be timed as close as possible to insect feeding activity. **Cover Crop Treatment:** Apply 140 mL per hectare once to rye or wheat cover when crop is 10 to 15 cm high, 4-5 days before ploughdown. Application should also be made to fence rows and to a 15 m strip into nearby cover crop.

Allow 60 days between the last treatment and harvest in barley and 30 days on wheat. Do not use treated cover crops as green feed for animals. **Soil Treatment:** Apply 280 mL per hectare once to the soil 5 days before transplanting. Do not incorporate. Do not disturb the soil surface for at least 5 days following treatment since mixing of UP-Cyde 2.5EC with soil will reduce its effectiveness. Application should also be made to fence rows and to a 15 m strip into nearby cover crops.

Post Planting Treatment: At transplanting, apply 280 mL per hectare of area sprayed in a 25 cm band over the row using 150 to 300 L of water per hectare. Under conditions of severe insect pressure, application should be made to fence rows and to a 15 m wide strip into nearby cover crops. A follow-up treatment may be necessary if there are late developing cutworms.

STEVIA: Cutworms-black, variegated and darksided - Apply at 280 mL/ha in sufficient water. Maximum of two applications per year. Ground application only. Apply post transplant as indicated by scouting. Do not apply within 50 days of harvest.

CONIFER SEEDLING (NURSERY): Tarnished Plant Bug (Lygus sp) - Apply 280 mL/ha in sufficient water for good coverage. Maximum of 3 applications per growing season. **NOT FOR GREENHOUSE USE.** Do not apply using back pack sprayers. Do not apply before stock thinning.

DIRECTIONS FOR USE

AERIAL APPLICATION

UP-Cyde 2.5EC may be applied once or twice per season as indicated for each crop listed below.

Specific Use Directions for Aerial Application

Read and understand the entire label before using this product.

Label rates, conditions and precautions are product specific. Apply only at the rate recommended for aerial application on this label. Where no rate for aerial application appears for a specific use, this product cannot be applied by any type of aerial equipment. For aerial applications, ensure the aircraft is equipped and calibrated to deliver a uniform spray coverage with a minimum potential for drift. To ensure uniform application use an appropriate marking device. Apply in weather conditions that will not promote drift.

Suggested conditions for good aerial application are moderate temperatures (less than 25°C), moderate relative humidity (greater than 40%), and light winds (3 to 9 kph). Aerial drift is increased under certain meteorological conditions. Do not apply during periods of dead calm, when winds are gusty or when temperature inversion is likely (e.g. evening when warm air is rising from the crop or morning when sunshine warms the soil and air rises from the field). Do not apply by air in winds greater than 16 kph at flying height at the site of application.

Use only medium or coarse nozzles rated as delivering droplets of volume median diameter of 215 microns or greater. Examples: 6506 flat fan, CP 0.125 deflector nozzle with a low shear deflector angle (30 degrees), D12-56 disc-core.

Apply in a spray volume of 10 to 40 litres per hectare. Use water volumes at the higher end of this range to ensure good coverage for optimum insect control and to minimize drift. Do not apply more than recommended rates of UP-Cyde 2.5EC per hectare per season by air.

Do not apply to any body of water. Avoid drifting of spray onto any body of water or other non-target areas.

This product is very toxic to fish and aquatic organisms. For the protection of non-target habitats, overspray or drift to sensitive habitats must be avoided. A buffer zone of 100 metres is required between the downwind edge of the boom and the closest edge of sensitive aquatic habitats such as sloughs, ponds, coulees, prairie potholes, lakes, rivers, streams, and wetlands, (and wildlife habitat at the edge of these bodies of water). Do not contaminate these habitats when cleaning and rinsing spray equipment or containers.

Apply only under conditions of good practice specific to aerial application as outlined in the Basic Knowledge Requirements for Pesticide Education in Canada: Applicator Core and Aerial Module, developed by CAPCO.

Do not allow the pilot to mix chemicals to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted.

It is desirable that the pilot have communication capabilities at each treatment site at the time of application.

The field crew and the mixer/loaders must wear chemical resistant gloves, coveralls and goggles or face shield during mixing/loading, cleanup and repair. All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly.

Clean and decontaminate protective clothing and application equipment regularly.

Read and understand the entire label before opening this product. If you have questions, call the manufacturer or obtain technical advice from the distributor or your provincial agricultural representative. Application of this specific product must meet and/or conform to the following:

CORN (Sweet and Field): European Corn Borer - Apply at 280 mL/ha in 20 to 45 L of water per hectare. Spray no later than when the first feeding is seen on foliage. Repeat sprays at 4 to 7 day intervals depending on the area and corn borer numbers (consult provincial agricultural representatives). Where there are two generations, late plantings of sweet corn will require sprays from the late whorl stage until close to harvest. Up to two applications per season by air may be applied as needed. Do not apply within 5 days of harvest.

Sweet corn plant refuse from processing plants and field corn silage derived from corn treated with UP-Cyde 2.5EC at the recommended rate and spray/harvest interval may be fed to lactating dairy cattle or beef cattle.

POTATOES: Colorado Potato beetle, Potato Flea Beetle, Potato Leafhopper, Tuber Flea Beetle - Apply at 140 mL/ha in 20 to 45 L of water when first signs of insects appear and damage is visible. **Tarnished Plant Bug:** Apply 200 mL/ha in 20 to 45 L of water when insects appear. Repeat sprays as required. Up to two applications per season may be applied by air as needed. Do not apply within 7 days of harvest.

RAPESEED (CANOLA): Crucifer Flea Beetle - Apply 140 mL/ha when leaf injury is first noticed. **Bertha Armyworm** - Apply 200 to 280 mL/ha in 20 to 45 L of water. Use higher rate for high infestations. Only one application per season may be applied by air as needed. Do not apply within 30 days of harvest. Do not apply to mustard.

SUNFLOWERS: Sunflower beetle - Apply at 100 mL/ha in 20 to 45 L of water per hectare when insects first appear. Only one application per season may be applied by air as needed. Do not apply within 70 days of harvest.

Sunflower Seed Weevil - Apply at 100 mL/ha in 20 to 45 L of water per hectare when insects first appear. Only one application per season may be applied by air as needed. Do not apply within 70 days of harvest.

Resistance-Management Recommendations

For resistance management, please note that UP-Cyde 2.5EC contains a Group 3 insecticide. Any insect population may contain individuals naturally resistant to UP-Cyde 2.5EC and other Group 3 insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same field. 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 UP-Cyde 2.5EC or other Group 3 insecticides with different groups that control the same pests in a field.
- Avoid application of more than the maximum number listed in the label and consecutive sprays of UP-Cyde 2.5EC or other insecticides in the same group in a season.
- 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, 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 United Phosphorous Inc.

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DiPel is a registered trademark of Valent BioSciences Corporation.