4-SEP-2003 Notification received of a label change. See below for this change.

02-MAR-27

GROUP 15 HERBICIDE

# **DEVRINOL® 50-WP Herbicide**

# SELECTIVE HERBICIDE

# COMMERCIAL

Wettable Powder for use on certain Pome Fruits, Small Fruits, Stone Fruits, Vegetables, Container-Grown Ornamentals, Field-Grown Nursery Stock, Liner Stock, Forestry Stock and Ground Covers.

# READ THE LABEL AND BOOKLET BEFORE USING KEEP OUT OF REACH OF CHILDREN

REGISTRATION NO. **20123**PEST CONTROL PRODUCTS ACT

NET CONTENTS: 1.81 kg

Syngenta Crop Protection Canada, Inc. 140 Research Lane Research Park, University of Guelph Guelph, Ontario N1G 4Z3 **Notification Change** 

United Pophorus Inc. 423 Riverview Plaza Trenton, NJ, 08611 USA

E92/E-2

# **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.

#### **FIRST AID**

**IN CASE OF POISONING,** contact a physician or a poison control centre **IMMEDIATELY**. Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

**If swallowed**, immediately give several glasses of water and induce vomiting by gagging the victim with a finger placed on the back of the victim's tongue. Give fluids until vomitus is clear. Never give anything by mouth to an unconscious or convulsing person. Call a physician or the nearest poison control centre immediately.

If in eyes, hold eyelids apart and flush with plenty of water for 15 minutes. Get medical attention.

**If on skin,** flush all affected areas with plenty of water for several minutes. Remove contaminated clothing and shoes. Get medical attention if irritation occurs. Wash clothing before reuse.

**If inhaled,** remove to fresh air. Seek medical attention if respiratory irritation occurs or if breathing becomes difficult.

#### **PRECAUTIONS**

KEEP OUT OF REACH OF CHILDREN. MAY BE HARMFUL IF SWALLOWED. Avoid contact with skin, eyes and clothing. Avoid breathing dust or spray mist. During Mixing/Loading, wear a long sleeved shirt, long trousers, coveralls, rubber boots, dust mask, chemical resistant gloves and goggles. During application, wear long sleeved shirt, long trousers, coveralls, rubber boots and chemical resistant gloves. Change clothing and gloves daily and wash thoroughly before reuse. Wash hands, face and arms thoroughly after handling and before eating or smoking. Routinely shower or bathe after work. Keep unprotected persons out of operating area. Avoid contamination of food and feed. Do not contaminate any body of water, including irrigation water or water used for domestic purposes.

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., contact 1-866-375-4648 or **www.cropro.org.** 

# **ENVIRONMENTAL HAZARDS**

Keep out of lakes, streams and ponds. Do not contaminate water by cleaning of equipment or disposal of wastes. Do not apply when weather conditions favour drift from areas treated. Do not contaminate any body of water, including irrigation water or water used for domestic purposes.

#### STORAGE

Do not store near food, feed, seed or fertilizer. Keep container tightly closed when not in use. Store in a cool, dry place.

# **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.

#### **DISPOSAL**

- 1. Empty bag thoroughly into spray tank.
- 2. Make the empty bag unsuitable for further use.
- 3. Dispose of the bag in accordance with provincial requirements.

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

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GUARANTEE:	
Napropamide	50%

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REGISTRATION NO. **20123**PEST CONTROL PRODUCTS ACT

**Syngenta Crop Protection Canada, Inc.** 

140 Research Lane Research Park, University of Guelph Guelph, Ontario N1G 4Z3

E92/E-2

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#### **DISPOSAL**

- 1. Empty bag thoroughly into spray tank.
- 2. Make the empty bag unsuitable for further use.
- 3. Dispose of the bag 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**

# **GENERAL USE PRECAUTIONS**

- DO NOT APPLY BY AIR
  - Read all label directions before using. Apply this product only as specified on the label.
  - Use only for recommended purposes and at recommended rates.
  - Do not overdose.
  - DEVRINOL 50-WP is recommended for use on mineral soils only. Not recommended for use on soils with over 10% organic matter.
  - To avoid injury to crops not specified on the label, do not plant until 12 months after the last DEVRINOL 50-WP application.
  - Do not apply more than once per season.
  - Spraying on ground heavily covered with leaves or trash may adversely affect weed control.
  - Do not apply to frozen ground.

#### **GENERAL USE INFORMATION**

DEVRINOL 50-WP is a selective surface-applied or incorporated herbicide for use in certain types of newly planted or established crops. DEVRINOL 50-WP does not control established weeds. All

weed growth and crop stubble in the fields must be thoroughly worked into the soil prior to planting. Spray equipment should be carefully calibrated before use and checked frequently during application to be sure nozzles are operating properly and are delivering a uniform spray pattern. Apply the recommended rate of DEVRINOL 50-WP in 200 to 900 litres of water per hectare in a low pressure boom-type sprayer.

When mixing DEVRINOL 50-WP, make a slurry and add to a nearly filled spray tank with adequate agitation. This will enhance initial mixing.

Be sure the spray tank, boom and nozzle have been thoroughly flushed with clean water before use. Sufficient jet or mechanical agitation should be provided during the filling operation and during application.

Allow the pump to run several minutes before application to insure proper suspension and mixing. The suspension should not be left in the spray tank for prolonged periods; batches should be mixed and applied the same day.

**NOTE:** All rates are given on a broadcast basis. Reduce rates proportionately for band or strip treatment, using the following formula:

Spray Band Width (cm) x Broadcast rate in = kg DEVRINOL 50-WP Row Width (cm) Kg per hectare per hectare for band treatment

#### **WEEDS CONTROLLED**

#### WEEDS CONTROLLED BY 9 KG/HA DEVRINOL 50-WP - SURFACE APPLICATION

NOTE: DEVRINOL 50-WP does not control established weeds.

#### **Annual Grasses:**

Annual bluegrass (Poa annua) Barnyard grass (Echinochloa spp.)
Foxtail (Setaria spp.) Large crabgrass (Digitaria sanguinalis)
Sandbur (Cenchrus spp.) Wild oats (Avena fatua)

#### **Annual Broadleaf Weeds:**

Chickweed (Stellaria media) (Polygonum aviculare) Prostrate knotweed Small-flowered mallow\* (Malva parviflora) (Portulaca oleracea) Purslane Storks bill (Erodium cicutarium) Annual sow-thistle (Sonchus oleraceus) (Chenopodium album) Lamb's quarters Groundsel (Senecio spp.)

Pineapple weed (Matricaria matricarioides) Redroot pigweed (Amaranthus retroflexus)

Prickly lettuce (Lactuca scarriola)

<sup>\*</sup> From seed

# WEEDS CONTROLLED BY 2.25 TO 4.5 KG/HA DEVRINOL 50-WP PREPLANT INCORPORATED OR POST-TRANSPLANT SURFACE APPLICATION

**NOTE:** DEVRINOL 50-WP does not control established weeds.

#### **Annual Grasses:**

Barnyard grass (Echinochloa spp.) Crabgrass (Digitaria spp.)

Fall panicum (Panicum dichoto miflorum)

Goosegrass (Eleusine indica)

#### **Annual Broadleaf Weeds:**

Carpetweed (Mollugo verticillata)
Purslane (Portulaca oleracea)
Lamb's quarters (Chenopodium album)
Pigweed (Amaranthus spp.)
Common ragweed\* (Ambrosia artemisiifolia)

#### **APPLICATIONS AND RATES**

#### **FRUIT CROPS**

#### **DEVRINOL Alone**

DEVRINOL 50-WP can be used on the following crops:

- Newly planted apple trees.
- Established apples, grapes peaches and pears.
- Highbush blueberries.
- Cultivated lowbush blueberries.
- Newly planted or established cane berries (blackberries, raspberries, boysenberries and loganberries).

Where recommended for use on established crops, apply DEVRINOL 50-WP only to stands that have been established for at least one year in the field, orchard or vineyard. Where recommended for use on newly planted crops, application may be made immediately after transplanting.

**Newly planted or established strawberries:** Application of DEVRINOL 50-WP should be delayed until the desired number of daughter plants have become established. Do not apply from bloom to harvest.

For control of all weeds listed (WEEDS CONTROLLED BY 9KG/HA), apply 9 kg DEVRINOL 50-WP per broadcast hectare to the soil surface. Apply in the fall through early spring prior to weed emergence. Do not apply DEVRINOL 50-WP to frozen ground. For best results, the treatment must reach the zone of weed seed germination. If rainfall does not occur within 7 days for a spring or fall application or 2 days for a summer application (June, July and August), a shallow incorporation to a

<sup>\*</sup>Suppression

depth of 2.5 to 5 cm or an irrigation (sprinkler or flood) with sufficient water to wet the soil to a depth of 5 to 10 cm is necessary.

**Newly Planted Apple Trees:** Annual Grasses and some Broadleaf Weeds - Apply 9 kg of DEVRINOL 50-WP per broadcast hectare post transplanting of apple trees and pre-emergence to weeds. Apply as a directed spray using a low pressure herbicide sprayer. For best results, lightly incorporate or irrigate if rainfall does not occur within two days after application.

**Highbush Blueberries:** Annual Grasses and some Broadleaf Weeds - Apply one application per season of 9 kg of DEVRINOL 50-WP per broadcast hectare in a band. Apply in the fall through early spring prior to weed emergence. Do not apply to frozen ground. Do not apply within 70 days of harvest.

**Cultivated Lowbush Blueberries:** Germinating Annual Grasses and Broadleaf Weeds: Apply 9 kg of DEVRINOL 50-WP per broadcast hectare in late fall/early spring when blueberries are dormant. Make only one application per season. Do not apply within 70 days of harvest.

# **DEVRINOL 50-WP Tank Mixed with Residual Herbicides for Annual Weed Control**

Consult the residual herbicide labels for other directions and precautionary information.

# FIRST YEAR FRUIT TREES (NEWLY PLANTED) - APPLE, APRICOT, CHERRY, PEACH, PEAR AND PLUM.

Tank mix with PRINCEP® NINE-T® (Simazine) - on a per hectare basis, apply a tank mix of 7 kg of DEVRINOL 50-WP plus 2.25 kg of PRINCEP NINE-T in 150 to 300 L water per hectare. Apply preemergent with a field sprayer. Make only one application per season.

Tank Mix with SINBAR® (terbacil) - on a per hectare basis, apply 9 kg of DEVRINOL 50-WP plus 625 g of SINBAR in 150 to 300 L water per hectare. Apply pre-emergent with a field sprayer. Make only one application per season.

To avoid injury to crops not specified on the label do not plant until 12 months after the last DEVRINOL 50-WP application.

Use as a directed spray and avoid contact with fruit or foliage. Do not apply when fruit is on the ground during the harvest period. Do not graze treated areas or use treated crop for feed or forage.

### ASPARAGUS, TOMATOES AND TOBACCO

### Asparagus (Seedlings and new Plantings)

Apply to the soil surface 4.5 to 9 kg of DEVRINOL 50WP per broadcast hectare pre-emergent to crop and weeds. Refer to WEEDS CONTROLLED lists for listed weeds and use of appropriate rate. Make only one application per season. Use the lower rate on light soils (coarse textured sandy and sandy-loam). For best results, irrigate if rainfall does not occur within two days after application.

# **Established Asparagus**

Tank mix with PRINCEP NINE-T (Simazine) - apply a tank mix of 9 to 13.4 kg of DEVRINOL 50-WP plus 1.5 to 2.75 kg of PRINCEP NINE-T in 150 to 300 L water per hectare. Apply pre-emergent to established beds with a field sprayer. Make only one application per season. Do not apply within 6 days of harvest.

To avoid injury to crops not specified on the label do not plant until 12 months after the last DEVRINOL 50-WP application.

# **Tomatoes (Direct seeded and Transplanted)**

Apply and incorporate before planting 2.25 to 4.5 kg DEVRINOL 50-WP per broadcast hectare. Use the lower rate on light soils (coarse textured-sandy and sandy-loam). On flat-planted or bedded crops apply, before planting, to well-worked soil that is dry enough to permit thorough incorporation to a depth of 2.5 to 5 cm. Incorporate the same day as applied, using equipment which will result in uniform incorporation of the herbicide to the desired depth.

If broadleaf weeds not listed on this label become a problem during the growing season, follow with a sequential application of a registered broadleaf herbicide.

# **Tobacco (Transplanted)**

Apply to the soil surface 2.25 to 4.5 kg DEVRINOL 50-WP per broadcast hectare. Use the lower rate on light soils (coarse textured-sandy and sandy-loam). Apply DEVRINOL 50-WP immediately following transplanting in a 25 to 30 cm band directly over the top of transplants, so that the treatment reaches the soil surface (See formula for band applications). For best results, lightly incorporate or irrigate if rainfall does not occur within 2 days after application.

**Post-Harvest Operations:** After harvesting or prior to planting of succeeding crops, a deep moldboard or disc ploughing operation must be carried out. For banded applications, work the soil at right angles to the row.

**Rotational Crop Restrictions:** When DEVRINOL 50-WP is used on tobacco post-transplant banded, small grains may be seeded in rotation in the fall to prevent soil erosion. These grains may be stunted but not otherwise adversely affected.

For all other labelled uses of DEVRINOL 50-WP, to avoid injury to crops not specified on the label, do not plant until 12 months after the last application of DEVRINOL 50-WP.

#### ORNAMENTALS AND FORESTRY STOCK

DEVRINOL 50-WP does not control established weeds. It must be applied to freshly weeded soil before weeds germinate or during fall and winter months.

DEVRINOL 50-WP can be applied to newly planted container grown stock after soil has settled from first watering, field grown nursery stock, and to established plants.

DEVRINOL 50-WP needs mechanical incorporation (such as power tiller), adequate irrigation or natural moisture (rainfall or snow) for optimum results. The treatment must reach the zone of weed seed germination. If rainfall does not occur within 7 days for a spring or fall application or 2 days for

a summer application (June, July and August), a shallow incorporation to a depth of 2.5 to 5 cm or an irrigation (sprinkler or flood) with sufficient water to wet the soil to a depth of 5 to 10 cm is necessary.

# **Nursery Stock - Field Grown (Ornamental and Forestry)**

Consult the list of plant species on which DEVRINOL 50-WP can be used.

Apply DEVRINOL 50-WP as a broadcast treatment over young nursery stock or as a directed spray to larger stock either as a band or broadcast application.

Application can be made anytime of the year to weed free soil. However, since DEVRINOL 50-WP requires rainfall or irrigation with sufficient water to wet the soil to a depth of 5 to 10 cm soon after application for adequate weed control, application should be timed to take advantage of rainfall if irrigation is not available. Fall and winter applications will provide excellent weed control the following spring and summer.

Thorough incorporation of DEVRINOL 50-WP into the soil to a depth of 2.5 - 5 cm will provide excellent weed control with less rainfall required.

One application of DEVRINOL 50-WP should provide adequate weed control for a growing season in temperate areas.

#### **Container Grown Ornamentals**

Consult the list of plant species on which DEVRINOL 50-WP can be used.

Apply DEVRINOL 50-WP as a broadcast application over the containers.

Normal irrigation or rainfall (if a fall or winter application is made in cold areas) should provide sufficient water for satisfactory weed control.

DEVRINOL 50-WP is recommended on several different container potting soil mixtures. These mixtures include those containing 30% soil and/or sand and mixtures containing no soil. (Example: perlite, peat, bark, sawdust and sand).

#### **Ground Covers**

Apply DEVRINOL 50-WP as a broadcast treatment over the ground covers. Irrigate immediately with sufficient water to wet the soil to a depth of 5 to 10 cm or apply when rainfall is expected. Use a boom sprayer for larger areas.

# **Ornamentals and Nursery Stock**

# **Deciduous and Evergreen Trees:**

Acer	Laburnum	Pinus	Populus
Crataegus	Malus	Pittosporum	Prunus
Gleditsia	Picia	Podocarpus	Pyrus

# **Deciduous and Evergreen Shrubs:**

Asparagus	Hibiscus	Ligustrum	Rhododendron
(Sprengeri)	Hypericum	Pittosporum	Rosa
Buxus	llex	Podocarpus	Taxus
Euonymus	Juniperus	Pyracantha	

### **Ground Covers:**

Gazania

# **Container Grown:**

Agapanthus Hedera Pinus Rhododendron

Asparagus Ilex Podocarpus Rosa Buxus Juniperus Pyracantha Thuja

Euonymus Ligustrum

# **Application Rates**

For control of the listed annual grasses and broadleaf weeds (WEEDS CONTROLLED BY 9KG/HA) in the following ornamentals, nursery stock, container grown and ground covers use the following rates:

Transplanted (lining out): apply 9 kg of DEVRINOL 50-WP per broadcast hectare in 470 litres of water (90 gm per 10 litres water per 100 sq. m) as soon as possible after lining out.

Established: apply 9 kg of DEVRINOL 50-WP per broadcast hectare in 470 litres of water (90 gm per 10 litres water per 100 sq. m) late fall or early spring. DEVRINOL 50-WP may be used alone or tank-mixed with simazine 80-W at a rate of 1.37 kg per broadcast hectare for control of broadleaf weeds not listed on this label.

# **Resistance-Management Recommendations**

For resistance management, DEVRINOL 50WP herbicide is a Group 15 herbicide. Any weed population may contain or develop plants naturally resistant to DEVRINOL 50WP herbicide and other Group 15 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field.

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 herbicide resistance:

Where possible, rotate the use of DEVRINOL 50WP herbicide or other Group 15 herbicides with different herbicide groups that control the same weeds in a field.

Use tank mixtures with herbicides from a different group when such use is permitted.

Herbicide use should be based on an IPM program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical), cultural, biological and other chemical control practices.

Monitor treated weed populations for resistance development. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment and planting clean seed.

Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.

For further information or to report suspected resistance, contact company representatives at 1-800-459-2422 (in Eastern Canada) or 1-800-665-9250 (in Western Canada) or at <a href="https://www.syngenta.ca">www.syngenta.ca</a>.

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