

# Penncozeb® 80WP

Fungicide

## AGRICULTURAL

### GUARANTEE:

MANCOZEB .....	80%
(Manganese .....	16%)
(Zinc equivalent .....	2%)
(Ethylene bisdithiocarbamate equivalent . . . .	62%)

REGISTRATION NO. 25396  
PEST CONTROL PRODUCTS ACT

### READ THE LABEL BEFORE USING

### POTENTIAL SKIN SENSITIZER

For Chemical Emergency:  
spill, leak, fire, exposure or accident,  
call CHEMTREC 1-800-424-9300.

### PRECAUTION

#### KEEP OUT OF REACH OF CHILDREN

May cause irritation of nose, throat, eyes and skin. Do not breathe dust or spray mist.

DO NOT re-enter treated areas within 24 hours. If required, individuals may re-enter treated areas within 24 hours for short-term tasks not involving hand labour if at least 4 hours has passed since application and long pants, long-sleeved shirt, hat and chemical-resistant gloves are worn.

For use in greenhouses, wear a chemical resistant rain suit, chemical resistant gloves, rubber boots, goggles or a face shield and either a respirator with a NIOSH/MSHA/BHSE approved organic vapour-removing cartridge with a pre-filter approved for pesticides, or a NIOSH/MSHA/BHSE approved canister approved for pesticides during mixing, loading, application, clean up and repair activities. Ventilate prior to reentry.

For all other registered uses, wear chemical resistant gloves, coveralls and goggles or face shield during mixing, loading, application, clean up and repair activities. In addition, wear an appropriate respirator when mixing and loading this product.

Keep away from fire and sparks. Do not allow to become wet or overheated in storage. This may generate flammable vapours. This product is toxic to fish. Do not apply directly to water or wetlands. Do not contaminate water by cleaning of equipment or disposal of wastes. Do not apply when weather conditions favor drift from areas treated.

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](http://www.croplife.ca).

## Net Contents: 25 kg

**United Phosphorus, Inc. (UPI)**

630 Freedom Business Center, Suite 402  
King of Prussia, PA 19406, USA

**FIRST AID** – In case of skin or clothing contact, 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 contact with 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. 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.

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

**TOXICOLOGICAL INFORMATION** – Treat as above for skin contact. If taken internally, administer gastric lavage.

## DIRECTIONS FOR USE

### GENERAL INSTRUCTIONS

Sift Penncozeb 80WP Fungicide slowly into spray tank as it is being filled or premix thoroughly in the nurse tank for concentrate or aircraft sprayers. Add insecticide and nutritional sprays last. Penncozeb 80WP Fungicide is believed compatible with most of the common pesticides used. Thorough, uniform coverage is essential for good disease control. For low volume airblast sprayers adjust the mixing rate accordingly.

### AERIAL APPLICATION

Apply only by fixed-wing or rotary aircraft equipment which has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions on this label.

Label rates, conditions and precautions are product specific. Read and understand the entire label before opening this product. Apply only at the rate recommended for aerial application on this label. Where no rate for aerial application appears for the specific use, this product cannot be applied by any type of aerial equipment.

Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices.

**Use Precautions:** Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage. 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 apply to any body of water. Avoid drifting of spray onto any body of water or other non-target areas. Specified buffer zones should be observed.

Coarse sprays are less likely to drift, therefore, avoid combinations of pressure and nozzle type that will result in fine particles (mist). Do not apply during periods of dead calm or when wind velocity and direction pose a risk of spray drift. Do not spray when the wind is blowing toward a nearby sensitive crop, garden, terrestrial habitat (such as shelter-belt) or aquatic habitat.

**Operator Precautions:** 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. Follow the more stringent label precautions in cases where the operator precautions exceed the generic label recommendations on the existing ground boom label.

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.

**Product Specific Precautions:** Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 800-438-6071, 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:

**Volume:** Apply at the recommended rate in a minimum spray volume of 40 liters per hectare for field crops.

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

For resistance management, please note that Penncozeb 80WP Fungicide contains a Group M fungicide. Any fungal population may contain individuals naturally resistant to Penncozeb 80WP Fungicide and other Group M fungicides. A gradual and total loss of pest control may occur over time if these fungicides are 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 fungicide resistance:

- Where possible, rotate the use of Penncozeb 80WP Fungicide or other Group M fungicides with different groups that control the same pathogens.
- Use tank mixtures with fungicides from a different group when such use is permitted.
- Fungicide use should be based on an IPM program that includes scouting, historical information related to pesticide use and crop rotation and considers cultural, biological and other chemical control practices.
- Monitor treated fungal populations for resistance development.
- If disease continues to progress after treatment with this product, do not increase the use rate. Discontinue use of this product, and switch to another fungicide with a different target site of action, if available.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pathogens.
- For further information and to report suspected resistance, contact United Phosphorus, Inc. at 1-800-438-6071 or at [www.upi-usa.com](http://www.upi-usa.com).

## **VEGETABLES**

### **(Ground boom Application)**

**POTATOES** – For early and late blight. Apply every 7-10 days throughout the season. Begin applications early applying 1.10 kilograms Penncozeb 80WP Fungicide per hectare and increasing to 1.75 to 2.25 kilograms per hectare as the vines increase in size. Thorough, uniform coverage is essential for good disease control. Do not apply within 1 day of harvest.

Use sufficient water to ensure adequate coverage of crop. This rate will vary for ground application equipment. However, use a minimum of 40 liters of water per hectare when applying this product aerially.

**POTATO SEED TREATMENT** – Apply 100 grams per 100 kg of potato seed pieces for the control of Fusarium Seed Piece Decay. Apply thoroughly to coat the surface of whole or cut seed pieces with dust. If treated whole seed is cut make a second application to protect the cut surface. Plant as soon as possible after treatment. If cut seed is not planted immediately, store in a well ventilated location to permit cut surface to dry. Do not use surplus treated seed pieces for food or feed.

**TOMATOES** – For control of early and late blight, Anthracnose, Stemphyllium (grey leaf spot). Use Penncozeb 80WP Fungicide at 1.10 to 3.25 kilograms per hectare in sufficient water to provide adequate coverage. Start applications when disease is first reported in the area and repeat every 7 to 10 days or more often under severe disease conditions. Do not apply within 7 days of harvest. **DO NOT APPLY BY AIR.**

**ONIONS** – For control of Botrytis leaf blight (leaf spot or blast). Apply 2.25 to 3.25 kilograms per hectare when disease first appears and repeat every 7 days as needed. Add a suitable wetting agent. Do not use on green bunching onions. Do not use later than 10 days before harvest. **DO NOT APPLY BY AIR.**

**CELERY** – For early and late blight. Begin spray at 2.25 kilograms per hectare in the plant bed when plants first come through the ground. Make further applications at 3-5 day intervals until plants are set in field. Continue field applications on a regular weekly schedule. Do not apply later than 14 days before harvest. At harvest trim, strip and wash celery. **DO NOT APPLY BY AIR.**

**CARROTS** – For leaf spot diseases. Start applications of 2.25 kilograms per hectare when plants are 6 weeks old or when disease threatens. Repeat at 7-10 day intervals. Do not apply later than 7 days before harvest. Do not use treated tops for food or feed. **DO NOT APPLY BY AIR.**

**CANTALOUPE, CUCUMBERS, PUMPKIN, SQUASH, MELONS AND WATERMELONS** – For control of Downy Mildew, Anthracnose, Scab, Gummy Stem Blight and Alternaria leaf spot. Use Penncozeb 80WP Fungicide at 1.10 to 3.25 kilograms per hectare in sufficient water to provide adequate coverage. Start applications when runners begin to form or at first sign of disease and repeat at weekly intervals. Direct spray for thorough coverage of both upper and lower leaf surfaces. Do not apply within 14 days of harvest. **DO NOT APPLY BY AIR.**

## **FRUIT**

### **DO NOT APPLY BY AIR.**

**APPLES** – For the control scab, cedar apple rust and quince rust. For a protective schedule begin applications of Penncozeb 80WP Fungicide in the green tip up to half inch green sprays. Repeat any subsequent pre-bloom, bloom and cover sprays in accordance with the timing in your local schedule for a protective program. For airblast applications, use 2.0 kilograms of Penncozeb 80WP Fungicide per 1000 litres of water in single strength sprays or the equivalent in concentrate sprays. If moderate disease conditions prevail, the dosage can be reduced to 1.5 kilograms in the cover sprays. The addition of a wetting agent will ensure a smoother, more even coverage of your spray material and helps prevent blotchy, visible residues. Fruit colour and finish on most apple varieties sprayed with Penncozeb 80WP Fungicide have frequently been outstanding; however, this product may cause some injury to Golden Delicious. Do not apply within 45 days of harvest.

**CAUTION** – Do not feed treated apple pomace to livestock.

**PEARS** – For the control of pear psylla. Use Penncozeb 80WP Fungicide at the rate of 6.75 kilograms per hectare in accordance with local spray recommendations. Do not apply within 45 days of harvest.

**GRAPES** – For the control of Downy Mildew on grapes use Penncozeb 80WP Fungicide at the rate of 2.0 kilograms per 1000 liters (6.75 kilograms per hectare) as follows - start applying when new shoots are 20-25 centimeters long (pre-bloom). Apply two to three more sprays 10-12 days apart post-bloom. Do not use spray within 30 days of harvest.

## FIELD CROPS

**SUGAR BEETS** – For Cercospora Leaf Spot control, use 2.25 kilograms per hectare in 800 litres of water in a protective program of 3-5 sprays. Do not apply within 21 days of harvest. Do not feed tops of treated sugar beets to cattle. **DO NOT APPLY BY AIR.**

### WHEAT (ALL VARIETIES)

For the control of tan spot, leaf rust and Septoria leaf blotch. The first application of 1.1 kg per hectare should be made at 3 leaf to tillering stage before there is more than a trace of disease on this leaf. The second application of 2.2 kg per hectare should follow as the head appears. Do not make more than two applications during the season and do not apply with 40 days of harvest. Do not feed straw or screenings to livestock. Do not graze the treated crop or cut for hay; there are not sufficient data to support such use.

Apply in sufficient water for adequate coverage. Use at least 100 liters per hectare for ground applications or at least 40 liters per hectare for aerial applications.

## TOBACCO

### GREENHOUSE

For blue mold control, apply 50 to 100 grams of Penncozeb 80WP Fungicide in 25 to 50 litres of water and apply to 100 square metres. Spray seedlings to wet without run-off. Start spraying when plants are 1.5 centimetres across and then twice per week until transplanting.

## ORNAMENTALS

### DO NOT APPLY BY AIR.

**JUNIPERS** – (British Columbia only) For pear trellis rust control use 2.8-3.5 kg Penncozeb 80WP Fungicide in 1000 L water per hectare. Make 3 applications annually in the third week of August and the second and fourth weeks of September. Thorough coverage of all junipers in the nursery is required.

**ARBORVITAE, JUNIPER, DOUGLAS FIR** – For control of Cornyneum blight, Keithia blight, Dieback, Rhabodcline needle cast, apply 2.75-3.5 kg in 1000 L. Spray at 10-14 day intervals during April, May, and early June to protect new growth.

**ASH, OAK, SYCAMORE** – For control of Anthracnose (*Gloeosporium* spp.), apply 2.75-3.5 kg in 1000 L. Spray at 10-14 day intervals beginning just prior to bud burst and continuing as long as wet weather persists in spring.

**HAWTHORN** – For control of Leaf Blight (*Diplocarpon* sp.), apply 2.75-3.5 kg in 1000 L. Spray at 10-14 day intervals as required beginning with bud burst in spring.

**HOLLY** – For control of Algae Leaf and twig blight (*Phytophthora ilicis*), apply 1.8-2.5 kg in 1000 L. Spray as required especially during wet season. Avoid applications close to harvest to avoid visible residues.

**IVY** – For control of Leaf spot (*Hedera* spp.), apply 1.25-2.5 kg in 1000 L. Spray as required especially during the wet season.

**PINE** – For control of Lophodermium needle cast, apply 2.5 kg in 1000 L. Spray every 2-3 weeks during July, August and September.

## HERBS

**GINSENG** – For control of Alternaria leaf blight. Use Penncozeb 80WP Fungicide at 4.4 kg/ha in 2000 L of water. Apply when disease first appears and follow with five subsequent sprays at two-week intervals as part of a regular spray program. Do not apply within 30 days of harvest. Do not feed ginseng foliage to livestock. **DO NOT APPLY BY AIR.**

## STORAGE AND DISPOSAL

**STORAGE:** Keep away from sparks. Store in cool, dry, well-ventilated place. Do not allow to become wet or overheated in storage; decomposition, impaired activity, or fire may result. Keep container closed when not in use. Pallets of containers should not be stacked more than 3 high. Provide access aisles for each 2 rows. Decomposition produces foul odor; if observed, check for hot containers and remove immediately to open areas for disposal. Do not contaminate food or feed by storage or disposal.

### 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 the case of a spill, and for the 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.

### TRANSPORT EMERGENCY

USA: 1-800-424-9300 CHEMTREC

Canada: 1-613-996-6666 CANUTEC

Penncozeb Fungicide is a trademark of United Phosphorus, Inc., King of Prussia, PA registered in Canada.

Made and Printed in Holland

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