

Pentathlon® DF

Fungicide

Dispersible Granules

1037.46



Department of Agriculture
STATE OF HAWAII

LICENSED

9985.39

PERIOD 2015-2017 LIC. NO.

LICENSED

PERIOD 2013-2014 LIC. NO.

GROUP M3 HERBICIDE



A broad spectrum fungicide for use as a spray for the control of many important plant diseases on flowers, foliage plants, ornamentals and turfgrasses.

Active Ingredient

Mancozeb, a coordination product of zinc ion and manganese ethylenebisdithiocarbamate in which the ingredients are:.....75.0%
Manganese++15.0%
Zinc++1.9%
Ethylenebisdithiocarbamate ion (C4H6N2S4)-58.1%

Other Ingredients25.0%
TOTAL100.0%

Contains 0.75 pound of mancozeb per pound of product.

Keep Out of Reach of Children CAUTION/PRECAUCIÓN

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Refer to the label booklet for additional precautionary information and directions for use including First Aid and Storage and Disposal.

Notice: Read the entire label before using. Use only according to label directions. Before buying or using this product, read *Terms and Conditions of Use*, *Warranty Disclaimer*, *Inherent Risks of Use* and *Limitation of Remedies* inside label booklet.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Harmful if absorbed through skin. Causes moderate eye irritation. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes, or clothing. 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.

FIRST AID

If swallowed	<ul style="list-style-type: none"> Call a poison control center 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 the poison control center or doctor. Do not give anything by mouth to an unconscious person.
If inhaled	<ul style="list-style-type: none"> Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
If in eyes	<ul style="list-style-type: none"> Hold eyes 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 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 - 20 minutes. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. In case of emergency endangering health or the environment involving this product, call **INFOTRAC** at 1-800-535-5053.

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163704

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SePRO Corporation 11550 North Meridian Street, Suite 600
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Fungicide

Net weight 6 pounds (Non-refillable)

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category A on an EPA chemical-resistance category selection chart.

Mixers, loaders, applicators, and other handlers must wear:

- Long sleeved shirt and long pants;
- Shoes and socks; and
- Chemical-resistant gloves made of any waterproof material (except pilots).

See engineering controls for additional requirements.

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

ENGINEERING CONTROLS

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)].

Human flagging is prohibited. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flaggers.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside, then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of the gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic organisms. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwater or rinsate.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls;
- Shoes and socks; and
- Chemical resistant gloves made of any waterproof material.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are **NOT** within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses. Do not enter treated areas or allow others to enter until sprays have dried.

RESISTANCE MANAGEMENT RECOMMENDATIONS

Pentathlon DF contains a Group M3 fungicide. Fungal isolates with acquired resistance to Group M3 may eventually dominate the fungal population if Group M3 fungicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of these species by Pentathlon DF or other Group M3 fungicides.

Pentathlon DF, a dispersible granule containing mancozeb, is labeled for use as a spray for the control of many important plant diseases.

Product Use Information

PENTATHLON DF Fungicide is a broad-spectrum fungicide labeled for use on outdoor and greenhouse grown crops, turf and ornamentals. Optimum disease control is achieved when the fungicide is applied in a regularly scheduled preventative spray program. The addition of an agricultural surfactant will enhance fungicide performance by providing a more uniform spray deposit, increased foliar redistribution, and enhanced fungicide retention during periods of wet weather. Contact your local product distributor or SePRO Corporation representative for specific surfactant recommendations.

Use Rate Determination

- Carefully read, understand, and follow label use rates and restrictions.
- When two pesticides are tank mixed, the more restrictive label requirements must be followed.
- Do not tank mix with any product which contains a prohibition on tank mixing.
- Under low disease conditions, minimum label rates per application can be used while maximum label rates and the minimum interval may be used for severe or threatening disease conditions.
- For proper application, determine the number of acres to be treated, the required label use rate and the volume to be applied per acre. Prepare only the amount of spray solution required to treat the measured acreage. Calibrate spray equipment prior to use.
- When applied by hand sprayers, 1 pound PENTATHLON DF per 100 gallons per acre is equivalent to 1 level tablespoon per gallon spray solution.

Mixing Procedures

Slowly pour into spray tank as it is being filled while agitation is maintained or thoroughly premix in a nurse tank for concentrate or aircraft sprayers. Add other co-applied fungicides, insecticides, growth regulators, micronutrients after PENTATHLON DF has been placed into suspension.

When preparing spray solutions for use in a hand sprayer, premix as a slurry in a small container, and then add to sprayer containing 1/3 to 1/2 the desired final water volume.

Compatibility

PENTATHLON DF is compatible with most commonly used agricultural fungicides, insecticides and growth regulators. When preparing tank mixes, user should consult spray compatibility charts or State Cooperative Extension Service Specialists prior to actual use.

Spray Drift Management

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

Wind Speed: Do not apply at wind speeds greater than 15 mph.

Temperature Inversions: If applying at wind speeds less than 3 mph, the applicator must determine if: (1) conditions of temperature inversion exist, or (2) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

Other State and Local Requirements: Applicators must follow all state and local pesticide drift requirements regarding application of mancozeb. Where states have more stringent regulations, they must be observed.

Equipment: All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

Aerial application (not permitted on sod farms and golf courses)

1. The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.
2. Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety.
3. When applications are made with a crosswind, the swath must be displaced downwind. The applicator must compensate for this displacement at the up and downwind edge of the application area by adjusting the path of the aircraft upwind.

Ground Boom Application:

1. Do not apply with a nozzle height greater than 4 feet above the crop canopy.

Application

Ground

Thorough coverage foliar sprays generally result in optimum disease control. To achieve satisfactory coverage use proper spray pressure, volume of spray mixture per acre, nozzles (generally hollow cone), disc (generally D-5 to D-7), nozzle spacing, and tractor speed. Consult spray nozzle and accessory catalogues for specific information on proper equipment calibration.

Hand Sprayers

Thoroughly spray plant foliage until runoff.

Aerial

A uniform initial spray deposit over the crop canopy generally results in optimum disease control. Each aircraft should be prechecked for droplet size, uniformity of spray pattern, swath width, and spray volume. During aerial application, human flaggers are prohibited.

Nozzle selection: Hollow cone brass nozzles with a D-series orifice disc and core (whirlplate) are recommended. Nozzles should point straight down or slightly backward.

Swath width: For most field and vegetable crops, swaths just beyond the wingspan of 36 to 40 feet for light aircraft and up to 45 feet for heavier aircraft are suggested. Optimum swath for helicopters is usually 5 to 10 feet beyond normal boom length.

Spray volume: Aerial applications are to be made in a minimum of two (2) gallons of water per acre. On vegetable and field crops, 2 to 3 gallons of spray per acre are generally optimum; orchards and vineyards can be handled with spray volumes of 5 gallons per acre. Some tall or dense foliage crops requiring greater penetration to the lower leaf surface will require higher spray volumes. **Do not use less than 5 gallons per acre in California.**

Altitude: For most crops, the spray boom should be positioned in 5 to 10 feet above the crop canopy.

Flagging: Mark swaths at the end of the field with permanent flags. Measure swaths accurately with a chain or other device except when rows can be accurately counted.

Restrictions

This product may not be used on turfgrass in residential settings and athletic fields.

Foliar Applications

- **Where EBDC Products Used Allow the Same Maximum Poundage of Active Ingredient per Acre per Season** - If more than one product containing an EBDC active ingredient (maneb, mancozeb or metiram) is used on a crop during the same growing season and the EBDC products used allow the same maximum poundage of active ingredient per acre per season, then the total poundage of all such EBDC products used must not exceed any one of the specified individual EBDC product maximum seasonal poundage of active ingredient allowed per acre.

- **Where EBDC Products Used Allow Different Maximum Poundage of Active Ingredient per Acre per Season** - If more than one product containing an EBDC active ingredient is used on a crop during the same growing season and the EBDC products used allow different maximum poundage of active ingredient per acre per season, then the total poundage of all such EBDC products used must not exceed the lowest specified individual EBDC product maximum seasonal poundage of active ingredient allowed per acre.

Chemigation Use Directions

Sprinkler Irrigation

PENTATHLON DF must be applied on a regular protectant fungicide schedule, **not an irrigation schedule**. If irrigation cycles are less frequent than specified PENTATHLON DF application intervals, ground or aerial applications must supplement chemigation applications to achieve adequate disease control.

Chemigation Requirements

- Apply PENTATHLON DF only through sprinkler irrigation systems including center-pivot, lateral move, end tow, side (wheel) roll, traveler, solid set, or hand move irrigation systems. Do not apply product through any other type of irrigation system.
- Lack of fungicidal effectiveness or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.
- If you have questions about calibration, you should contact a State Extension Service specialist, equipment manufacturers, or other experts.
- Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water system are in place.
- A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Specific Chemigation Equipment Requirements

Before applying PENTATHLON DF through sprinkler irrigation equipment, the chemigation system must meet the following specifications:

- Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- Chemigation systems connected to public water systems must contain a functional reduced-pressure zone (RPZ), backflow preventer or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There must be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- Systems not connected to a public water supply must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located in the irrigation pipeline to prevent water source contamination from back flow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motors stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected/
- Systems must use a metering pump such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- Do not apply when wind speed favors drift beyond the area intended for treatment.

Center-Pivot, Lateral Move, End Tow, and Traveler Irrigation Equipment

(Use only with electric or oil hydraulic drive systems which provide a uniform water distribution):

- Determine the size of the area to be treated.
- Determine the time required to apply no more than 1/4 inch water (6,750 gallons water per acre) over the area to be treated when the system and injection equipment are operated at normal pressures recommended by the equipment manufacturer. Run system at 80% to 95% of manufacturer's rated capacity.
- Using only water, determine the injection pump output when operated at normal line pressure.
- Determine the amount of PENTATHLON DF required for the treatment area.
- Add the required amount of PENTATHLON DF and sufficient water to meet the injection time requirements of the solution tank.
- Maintain constant solution tank agitation during the injection period.
- Stop injection equipment after treatment is completed. Continue to operate the system until PENTATHLON DF solution has cleared the sprinkler head.

Solid-Set, Side (Wheel) Roll, and Hand Move Irrigation Equipment:

- Determine acreage covered by sprinkler.
- Fill injector solution tank with water and adjust flow rate to use contents over a 10 to 30-minute interval.
- Determine the amount of PENTATHLON DF required for the treatment area.
- Add the required amount of PENTATHLON DF into the same quantity of water used to calibrate the injection equipment.
- Maintain constant solution tank agitation during the injection period.
- Operate system at normal pressures recommended by the manufacturer of the injection equipment and used for the time interval established during calibration.
- Inject PENTATHLON DF at the end of the irrigation cycle or as separate application to maximize foliar fungicide retention.
- Stop injection equipment after treatment is completed. Continue to operate the system until PENTATHLON DF solution has cleared the last sprinkler head.

FLOWERS, FOLIAGE PLANTS, AND ORNAMENTALS

Restrictions

- Cut flowers and greenhouse grown ornamentals: Limit to 20 applications per year.
- Do not use for food or feed.

Note: Plant sensitivities to Pentathlon DF have been found to be acceptable in specific genera and species listed on this label, however, phototoxicity may occur. Due to the large number of species and varieties of ornamentals and nursery plants, it is impossible to test each one for sensitivity to Pentathlon DF. Neither the manufacturer or seller has determined whether or not Pentathlon DF can be safely used on ornamental or nursery plants not listed on this label. The user should determine if Pentathlon DF can be used safely prior to commercial use. In a small area, apply the labeled rates to the plants in question, i.e. bedding plants, foliage, etc., and observe for 7 to 10 days for symptoms of phytotoxicity prior to commercial use. Use Pentathlon DF in commercial greenhouses and nurseries for control of fungal diseases of flowers, foliage and ornamentals.

For outdoor (field nursery) or greenhouse use, apply the equivalent of 1-2 lbs PENTATHLON DF per 100 gallons of dilute spray (1.5 lbs PENTATHLON DF per acre). The addition of Latron B-1956 to spray solutions will improve performance.

Begin spraying when plants are well leaved out or at first sign of disease, in a full coverage spray at 7- to 10-day intervals throughout the season for disease control on the following ornamental plants:

Crop	Diseases Controlled	Remarks (Also Refer to Directions for Use – Restrictions)
African violet	Botrytis blight	
almond (ornamental)	leaf spot	
alyssum	leaf spot	
anthurium	anthracnose, spadix rot	
apple (ornamental)	Fabraea leaf spot rust scab	
arborvitae	Cercospora blight	
areca palm	leaf spot	
ageratum	Botrytis blight rust	
ash, mountain	Entomosporium leaf spot Guignardia leaf blotch	
ash, white	anthracnose Cylindrosporium leaf spot	
aster	Leaf spot	
aster, perennial	Alternaria leaf spot anthracnose	
azalea	Cylindrocladium rot petal blight Phytophthora twig and bud blight	Apply in a full coverage spray, 2 to 3 times a week, while flowers are opening. Direct spray into flowers and thoroughly spray ground under bushes.
bougainvillea	Leaf spot	
begonia	Botrytis blight	
boxwood	Leaf spot	
buffaloberry	Cylindrosporium leaf spot	
camellias	petal blight	Refer to Azalea.
carnation	rust Septoria leaf spot	
cedar, red (juniper)	Cercospora blight Phomopsis blight	
chrysanthemum	Ascochyta blight Botrytis petal spot rust	Apply twice weekly during blooming period.
cockscomb (celosia)	Alternaria leaf spot	
conifers (Christmas trees)	Lophodermium needle cast pine gall rust Scirrhia brown spot	Begin application in spring or early summer before infection occurs. Repeat after heavy rains and at two-week intervals as long as needed.
cordyline	Cercospora leaf spot	
crabapple (ornamental)	cedar-apple rust scab Sphaeropsis leaf spot	
cypress, Arizona (<i>Cupressus</i> spp.)	Cercospora blight Monochaetia canker	
dahlia	Botrytis blight	
delphinium	Botrytis blight	
dieffenbachia	Leptosphaeria brown spot	

(continued)

Crop	Diseases Controlled	Remarks (Also Refer to Directions for Use – Restrictions)
dogwood, flowering	anthracnose Elsinoe leaf spot Septoria leaf spot	Apply when buds begin to open, when bracts have fallen, 4 weeks later and again in late summer after flower buds for next season have formed.
dracaena	Fusarium leaf spot	
elm	black leaf spot	
euonymus	anthracnose	
fatsia	anthracnose	
fern	Rhizoctonia blight	
figus	Cercospora leaf spot	
fig	Cylindrocladium leaf spot	
firethorn (pyracantha)	Fusicladium scab	
fir, Douglas	Swiss needle cast	
fir, Fraser	Swiss needle cast	
fuchsia	Botrytis blight rust	
geranium	rust	
gladiolus	Botrytis blossom blight Curvularia leaf spot	Make regular weekly applications starting before diseases appear and increase to 2 or 3 applications per week during periods of heavy disease and during rainy weather. On flower spikes, reduce spray concentration to 3/4 lb per 100 gallons.
gloxinia	Botrytis blight	
gypsophila	Botrytis blight	
hawthorn	cedar-apple rust Fabraea leaf spot frog-eye leaf spot hawthorn rust scab	
hickory	Gnomonia leaf spot	
holly	purple spot	
hollyhock	anthracnose Cercospora leaf spot Puccinia rust	
honeysuckle	Herpobasidium blight	
horsechestnut, buckeye	Alternaria leaf spot Guignardia leaf blotch	
hydrangea	Botrytis blight Cercospora leaf spot	
impatiens	Botrytis blight	
iris	Didymellina leaf spot Mycosphaerella leaf spot Mystrosporium ink spot	(formerly Didymellina)
juniper	Phomopsis blight	
larkspur	rust	
laurel, mountain	Cercospora leaf spot petal blight	Refer to azalea.
ligustrum	Cercospora leaf spot	
lily	Botrytis blight	
magnolia	Gloeosporium leaf spot	

Crop	Diseases Controlled	Remarks (Also Refer to Directions for Use – Restrictions)
maple	Alternaria leaf spot Phyllosticta leaf spot	Do not use sap for syrup production.
marigold	Botrytis blossom blight	Do not use on French dwarf double or Signet type marigold seedlings.
narcissus	Botrytis blight (fire) smoulder	
oak	Actinopelte leaf spot Taphrina leaf blister	
orchid (Dendrobium)	Botrytis blossom blight	
oxalis	rust	
pansy	anthracnose	
pears (ornamental)	Fabraea leaf spot rust scab	
peony	Botrytis blossom blight Phytophthora blight	Apply in early spring and early fall, drenching soil around plants as well as the foliage. Promptly destroy all infected plant parts.
peperomia	Cercospora leaf spot	
petunia	Botrytis blight	
philodendron	Dactylaria leaf spot Phytophthora leaf spot	
phlox	leaf spot	
photinia	Entomosporium leaf spot	
pine, Australia	Cyclaneusma needle cast	
pine, Scotch	Cyclaneusma needle cast gall rust	
pittosporum	Alternaria leaf spot	
pleomele	Fusarium leaf spot	
poinsettia	Sphaceloma scab	
poplar	rust	
primrose	Botrytis blight	
protea	Botrytis blight	
quince (ornamental)	Fabraea leaf spot rust scab	
rhododendron	Cercospora leaf spot Discosia leaf spot petal blight	Refer to azalea.
rose	black spot Cercospora leaf spot rust	
rosemary	Rhizoctonia aerial blight	
schefflera	Alternaria blight	
Scotts pine	needle cast	
skunkbush, sumac	Cylindrosporium leaf spot	
snapdragon	rust	
spathiphyllum	Myrothecium leaf spot	

(continued)

Crop	Diseases Controlled	Remarks (Also Refer to Directions for Use – Restrictions)
statice	Cercosporium leaf spot	
strawflower	rust	
syngonium	Cephalosporium leaf spot	
thorn apple	rust	
tulip	Botrytis blight (fire)	
venus, flytrap	anthracnose	
viburnum	downy mildew Ramularia leaf spot	
walnut	anthracnose	Do not use nuts for food or feed.
zinnia	Alternaria leaf blight	

TURFGRASSES: Sodfarms, Turf Uses

For use on sod farms, golf courses, industrial and commercial lawns and other similar nonresidential areas. Not for use on residential or athletic turf.

Restrictions:

Sod Farm Turf:

- Harvesting of treated turf is prohibited until 5 days following application.
- Limit to a maximum of 4 applications per year and a maximum rate of 23.2 lbs of product per acre (17.4 lbs ai/A) per application.
- Minimum interval between applications is 10 days.

Golf Courses:

- For cool season grasses; greens, tees and aprons – limit to a maximum of 5 applications per year at a maximum application rate of 23.2 lb of product per acre (17.4 lbs ai/A) per application.
- For cool season grasses; fairways – limit to a maximum of 4 applications per year at a maximum application rate of 23.2 lbs of product per acre (17.4 lbs ai/A) per application.
- For warm season grasses; greens, tees and aprons – limit to a maximum of 4 applications per year at a maximum application rate of 23.2 lbs of product per acre (17.4 lbs ai/A) per application.
- For warm season grasses; fairways – limit to a maximum of 3 applications per year at a maximum application rate of 23.2 lbs of product per acre (17.4 lbs ai/A) per application.
- Minimum interval between applications is 10 days.

All Other Turf:

- Limit to a maximum of 4 applications per year and a maximum application rate of 23.2 lbs of product per acre (17.4 lbs ai/A) per application.
- Minimum interval between applications is 10 days.

Start application when grass greens-up in spring or when disease first appears and repeat at 10 to 14 day intervals or until disease threat is past. When conditions are especially favorable for disease development, apply maximum fungicide use rate on a 10-day spray schedule. Apply in sufficient water to provide adequate coverage.

Turf Tolerance

Treated turfgrass should be maintained in a vigorous growing condition. Turfgrass under stress will not respond to fungicide treatments as well as well-maintained turfgrass. Turfgrass tolerance to this product has been found to be acceptable, however, this product and tank mixtures with other products have not been tested on all varieties of every turfgrass species or under all possible growing conditions. If user is unfamiliar with the performance of PENTATHLON DF or tank mixtures, under user growing conditions, a limited area of turfgrass should be treated prior to initiating large-scale applications. The user should always exercise reasonable judgment and caution when using this product.

Crop	Diseases Controlled	PENTATHLON DF Rate per Application (oz/1000 sq ft)	Remarks (Also Refer to Directions for Use)	Restrictions
assorted grasses	Helminthosporium melting-out rust (leaf, stem, stripe)	4		Do not graze treated areas.
	copper spot Fusarium blight red thread slime mold	4 to 8		Do not use on grasses intended for grazing, such as range or pasture grasses.
	algae	6		Do not feed clippings to livestock.
	dollar spot	6 to 8		Do not use on grasses grown for seed.
	Rhizoctonia brown patch	4	Apply on a 10-day spray schedule.	
	Pythium blight	8	Apply at 10-day intervals.	
	Fusarium snow mold	6 to 8	Apply at 2 to 6 week intervals during winter.	
	gray leaf spot	8	Apply on a 14-day spray schedule when conditions are favorable for disease development	

ATTENTION:

This product contains mancozeb and ETU, chemicals known to the State of California to cause cancer in laboratory animals. ETU is also known to the State of California to cause birth defects or other reproductive harm in laboratory animals.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

Pesticide Storage: Important. Never allow Pentathlon DF to become wet during storage. This may lead to certain chemical changes which will reduce the effectiveness of Pentathlon DF as a fungicide and create vapors which may be flammable. Keep container closed when not in use. Store product in original container only, away from other pesticides, fertilizer, food or feed.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Nonrefillable Container Handling (non-rigid, any size): Do not reuse or refill this container. Offer for recycling if available.

Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

TERMS AND CONDITIONS OF USE

If terms of the following *Warranty Disclaimer*, *Inherent Risks of Use* and *Limitation of Remedies* are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, to the extent consistent with applicable law, use by the buyer or any other user constitutes acceptance of the terms under *Warranty Disclaimer*, *Inherent Risks of Use*, and *Limitation of Remedies*.

WARRANTY DISCLAIMER

SePRO Corporation warrants that the product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, SEPRO CORPORATION MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.**

INHERENT RISKS OF USE

It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of SePRO Corporation or the seller. To the extent consistent with applicable law, all such risks shall be assumed by buyer.

LIMITATION OF REMEDIES

To the extent consistent with applicable law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories) shall be limited to, at SePRO Corporation's election, one of the following:

- (1) Refund of purchase price paid by buyer or user for product bought, or
- (2) Replacement of amount of product used.

To the extent consistent with applicable law, SePRO Corporation shall not be liable for losses or damages resulting from handling or use of this product unless SePRO Corporation is promptly notified of such losses or damages in writing. To the extent consistent with applicable law, in no case shall SePRO Corporation be liable for consequential or incidental damages or losses. SePRO Corporation will not be responsible for losses or damages resulting from use of this product in any manner not specifically recommended by SePRO Corporation. User assumes all risks associated with such non-recommended use.

The terms of the *Warranty Disclaimer*, *Inherent Risks of Use* and this *Limitation of Remedies* cannot be varied by any written or verbal statements or agreements. No employee or sales agent of SePRO Corporation or the seller is authorized to vary or exceed the terms of the *Warranty Disclaimer* or this *Limitation of Remedies* in any manner.

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GROUP M3 HERBICIDE

PEEL FILM HERE

Pentathlon® DF

Fungicide Dispersible Granules

A broad spectrum fungicide for use as a spray for the control of many important plant diseases on flowers, foliage plants, ornamentals and turfgrasses.

Active Ingredient

Mancozeb, a coordination product of zinc ion and manganese ethylenebisdithiocarbamate in which the ingredients are:..... 75.0%

Manganese++15.0%

Zinc++1.9%

Ethylenebisdithiocarbamate ion (C4H6N2S4)--.....58.1%

Other Ingredients..... 25.0%

TOTAL 100.0%

Contains 0.75 pound of mancozeb per pound of product.

Keep Out of Reach of Children CAUTION/PRECAUCIÓN

Refer to the label booklet for additional precautionary information and directions for use.

Notice: Read the entire label before using. Use only according to label directions. **Before buying or using this product, read Terms and Conditions of Use, Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies** inside label booklet.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION. Harmful if absorbed through skin. Causes moderate eye irritation. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes, or clothing. 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.

SePRO Corporation 11550 North Meridian Street, Suite 600,
Carmel, IN 46032, U.S.A.

FIRST AID	
If swallowed	<ul style="list-style-type: none"> • Call a poison control center 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 the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
If in eyes	<ul style="list-style-type: none"> • Hold eyes 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 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 - 20 minutes. • Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. In case of emergency endangering health or the environment involving this product, call INFOTRAC at 1-800-535-5053.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

Pesticide Storage: Important. Never allow Pentathlon DF to become wet during storage. This may lead to certain chemical changes which will reduce the effectiveness of Pentathlon DF as a fungicide and create vapors which may be flammable. Keep container closed when not in use. Store product in original container only, away from other pesticides, fertilizer, food or feed.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Nonrefillable Container Handling (non-rigid, any size): Do not reuse or refill this container. Offer for recycling if available. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

EPA Reg. No.67690-39
FPL20121001

EPA Est. No. 65387-AR-002
163704

Fungicide

Net weight 6 pounds (Non-refillable)

