

# PAR-FLO® 4F

## A Flowable Soil Fungicide

### FOR THE PREVENTION AND CONTROL OF CERTAIN SOILBORNE DISEASES ON TURF & ORNAMENTALS

#### ACTIVE INGREDIENT:

Pentachloronitrobenzene (PCNB) .....38.3%

**INERT INGREDIENTS:** .....61.7%

**TOTAL:** .....100.0%

Contains 4 lbs. of PCNB per gallon

### KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID	
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If inhaled</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>

#### EMERGENCY INFORMATION

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**FOR THE FOLLOWING EMERGENCIES, PHONE 24 HOURS A DAY:**

Transportation: CHEMTREC .....1-800-424-9300

Other: AMVAC .....1-323-264-3910

#### PRECAUTIONARY STATEMENTS

##### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Harmful if swallowed. Avoid inhaling spray mist. This material may cause skin irritation. Use with adequate ventilation. Do not contaminate feed or foodstuffs.

##### 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 C on an EPA chemical-resistance category selection chart. Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride or Viton
- Shoes plus socks
- For exposure outdoors, dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C) or NIOSH approved respirator with any N, R, P or HE filter.

- For exposure in enclosed areas, a respirator with either an organic, vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G) or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any N, R, P or HE prefilter.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### USER SAFETY RECOMMENDATIONS

##### Users should:

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

#### ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of equipment washwaters. This product is toxic to fish. 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 apply where run-off is likely to occur. Apply this product only as specified on this label. Do not apply directly adjacent to potable water supplies.

#### PHYSICAL OR CHEMICAL HAZARDS

Do not allow product to freeze.

#### DIRECTIONS FOR USE

##### ◆◆ Shake Well Prior To Use ◆◆

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Thoroughly mix product in original container prior to use. 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 (REI). 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 workers into treated areas during the restricted-entry interval of 12 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, chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride or Viton, and shoes plus socks.

#### NON-AGRICULTURAL USE REQUIREMENTS

These requirements apply to uses of this product NOT in 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. Keep children, pets and other unprotected persons out of treated areas until sprays have dried.

#### USE PRECAUTIONS

If you do not have experience using this product for any plant species not listed on this label, it is recommended that you first use the product on a limited number of plants on a trial basis. This product can not be mixed with any

EPA Reg. No. 5481-472

EPA Est. No. 37429-GA-1



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product containing a label restriction against such mixing. Do not tank mix with other chemicals unless prior use has proven they are compatible.

## TURFGRASS

Use as a fungicide for the prevention and control of the listed soilborne diseases which attack turfgrasses.

DISEASES CONTROLLED
Brown Patch ( <i>Rhizoctonia solani</i> ) Dollar Spot ( <i>Sclerotinia homoeocarpa</i> )* Leaf Spot ( <i>Drechslera spp.</i> )* Gray Snow Mold ( <i>Typhula spp.</i> ) Pink Snow Mold ( <i>Microdochium nivale</i> )
*Not registered for use in California

For best results, use as a preventive application before diseases appear or apply at the first sign of the infection. If heavy rainfall or flooding occurs after treatment or if disease is severe or reappears, treat area again. Follow the rates and comments as listed in Table 1 for control of turfgrass diseases.

**NOTE:**

- Apply in sufficient water to assure uniform ground coverage.
- Treated area should be watered lightly as soon as possible after the application to wash the fungicide down to the soil level.
- Apply the high rate when disease is severe and use low rate when disease pressure is light.

## ORNAMENTALS

PAR-FLO 4F is a preventative fungicide that can be used as a soil treatment for control of a variety of soilborne diseases of ornamentals grown in greenhouses, shadehouses, nurseries, landscaping, and interiorscapes as indicated in Table 2.

**NOTE:**

- Spray solution containing PAR-FLO 4F must be continuously agitated.
- Drench or incorporate the spray solution thoroughly into the soil.
- When a rate range is shown, use the lower rates on light or coarse textured soils or when disease pressure is expected to be low. Use the higher rates on heavy or fine textured soils or in fields with a history of disease problems and when weather conditions are anticipated to be unfavorable for germination and growth of seedlings.

### STORAGE AND DISPOSAL

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

**STORAGE:** Store product in its original container in a cool, dry locked place out of reach of children. Protect from temperatures below 20°F.

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

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other approved procedures by State or local authorities.

## LIMITED WARRANTY AND DISCLAIMER

The manufacturer warrants (a) that this product conform to the chemical description on the label; (b) that this product is reasonably fit for the purposes set forth in the directions for use, subject to the inherent risks referred to herein, when it is used in accordance with such directions; and (c) that the directions, warnings, and other statements on this label are based upon responsible experts' evaluations of reasonable tests of effectiveness, of toxicity to laboratory animals and to plants and residues on food crops, and upon reports of field experience. Tests have not been made on all varieties of food crops and plants, or in all states or under all conditions.

THERE ARE NO EXPRESS WARRANTIES OTHER THAN THOSE SET FORTH HEREIN. THE MANUFACTURER NEITHER MAKES NOR INTENDS, NOR DOES IT AUTHORIZE ANY AGENT OR REPRESENTATIVE, TO MAKE ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, AND IT EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE, OR ANY WARRANTY OF QUALITY OR PERFORMANCE. THIS WARRANTY DOES NOT EXTEND TO, AND THE BUYER SHALL BE SOLELY RESPONSIBLE FOR, ANY AND ALL LOSS OR DAMAGE WHICH RESULTS FROM THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE LABEL DIRECTIONS, WARNINGS OR CAUTIONS.

BUYER'S EXCLUSIVE REMEDY AND MANUFACTURER'S OR SELLER'S EXCLUSIVE LIABILITY FOR ANY AND ALL CLAIMS, LOSSES, DAMAGES, OR INJURIES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER OR NOT BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE, SHALL BE LIMITED, AT THE MANUFACTURER'S OPTION, TO REPLACEMENT OF, OR THE REPAYMENT OF THE PURCHASE PRICE FOR, THE QUANTITY OF PRODUCT WITH RESPECT TO WHICH DAMAGES ARE CLAIMED. IN NO EVENT, SHALL MANUFACTURER OR SELLER BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

AMVAC offers this product, and Buyer accepts it, subject to the foregoing Limited Warranty which may be varied only by agreement in writing signed by an authorized representative of AMVAC.

PAR-FLO 4F™ is a trademark of AMVAC Chemical Corporation.

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**TABLE 1**

Disease/Host	fl. oz. PAR-FLO 4F in Gallons of Water/1,000 sq. ft.	Application Directions
<b>St. Augustine, Bermuda &amp; similar warm season grasses</b> Brown Patch ( <i>Rhizoctonia solani</i> )	16 to 24 fl. oz. in 1 - 10 gallons of water	Apply at first sign of disease. If it reappears, retreat 3 to 4 weeks later.
<b>Dichondra</b> Brown Patch ( <i>Rhizoctonia solani</i> )	16 to 24 fl. oz. in 5 - 10 gallons of water	Treat as above.
<b>Bluegrass, Rye, Fescue, Bent &amp; similar cool season grasses</b> Brown Patch ( <i>Rhizoctonia solani</i> )	5 to 6 fl. oz. in 1 - 10 gallons of water	Apply at first sign of disease. Repeat every 7 to 10 days during warm damp weather.
<b>All Turfgrass Species</b> Leaf Spot ( <i>Drechslera spp.</i> )* Dollar Spot ( <i>Sclerotinia homoeocarpa</i> )* *Do not use in California	11 to 16 fl. oz. in 1 - 10 gallons of water	For preventative, apply in spring or fall of each year. If disease is present, apply 16 fl. oz as soon as possible. If disease is severe, retreat areas 3 to 4 weeks later.
<b>Cool Climate Grasses</b> Gray Snow Mold ( <i>Typhula spp.</i> ) Pink Snow Mold ( <i>Microdochium nivale</i> )	12 to 16 fl. oz. in 1 - 10 gallons of water	First treatment should be made prior to first snowfall. Reapply 6 fl. oz. at 4 to 6 week intervals if a Winter thaw and loss of snow cover occurs.

Do not graze treated areas or feed grass clippings to livestock. Under certain growing conditions, a temporary discoloration of the grass may occasionally occur. This causes no harm and will disappear in a short time.

**TABLE 2**

CROP	DISEASE	QTY OF PAR-FLO 4F	RECOMMENDED APPLICATION																												
<b>AZALEAS</b>	Azalea Petal Blight ( <i>Ovulinia azaleae</i> )	1.5 pts.	Apply specified amount in sufficient water to cover 150 square feet. Apply to soil underneath the bushes and immediate surrounding area. Begin application prior to opening of buds. Repeat every 3 to 4 weeks through bloom period.																												
<b>CAMELLIAS</b>	Camellia Flower Blight ( <i>Sclerotinia camelliae</i> )																														
<b>BEDDING PLANTS, FLOWERING PLANTS, FOLIAGE PLANTS, TROPICAL PLANTS, and WOODY PLANTS</b> such as, but not limited to: Ajuga, Anthurium, Aphelandra, Azalea, Chrysanthemum, Dianthus, Dieffenbachia, Dracaena, Ficus, Fittonia, Gardenia, Gynura, Hoya, Impatiens, Lilies, Marigold, Pansy, Peperomia, Petunia, Poinsettia, Pathos, Rhododendron, Schefflera, Spathiphyllum, Syngonium, Tradescantia  <i>Do not apply to Philodendron or Pilea as injury may occur.</i>	Root/Stem Rot ( <i>Rhizoctonia solani</i> ) ( <i>Pellicularia filamentosa</i> )	6 to 12 fl. oz.	<b>SOIL DRENCH:</b> Mix specified amount in 100 gallons of water and apply as follows:  <b>BED, BENCH, CONTAINER &amp; FIELD GROWN PLANTS</b> <table border="1"> <thead> <tr> <th rowspan="2">Depth of Soil (inches)</th> <th colspan="2">Quantity of PAR-FLO 4F Drench Solution</th> </tr> <tr> <th>Fl. Oz./Sq. Ft.</th> <th>(Sq. Ft./100 gals of soln)</th> </tr> </thead> <tbody> <tr> <td>≤ 2</td> <td>16</td> <td>800</td> </tr> <tr> <td>3</td> <td>24</td> <td>530</td> </tr> <tr> <td>≥ 4</td> <td>32</td> <td>400</td> </tr> </tbody> </table> <b>POTTED PLANTS</b> <table border="1"> <thead> <tr> <th>Pot Diameter (inches)</th> <th>Minimum Quantity of PAR-FLO™ 4F Drench Solution (Fl. Oz./Pot)</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>1.5</td> </tr> <tr> <td>5</td> <td>3</td> </tr> <tr> <td>6</td> <td>4</td> </tr> <tr> <td>8</td> <td>7</td> </tr> <tr> <td>10</td> <td>13</td> </tr> <tr> <td>12</td> <td>18</td> </tr> </tbody> </table> If necessary, one repeat application may be made 4 to 6 weeks following the first application.	Depth of Soil (inches)	Quantity of PAR-FLO 4F Drench Solution		Fl. Oz./Sq. Ft.	(Sq. Ft./100 gals of soln)	≤ 2	16	800	3	24	530	≥ 4	32	400	Pot Diameter (inches)	Minimum Quantity of PAR-FLO™ 4F Drench Solution (Fl. Oz./Pot)	4	1.5	5	3	6	4	8	7	10	13	12	18
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Black Rot ( <i>Sclerotinia sclerotiorum</i> )	5 pts.	<b>BROADCAST APPLICATION:</b> Apply as a pre-plant broadcast spray prior to planting to 1,000 square feet of soil. Apply in sufficient water for uniform coverage. Thoroughly incorporate to a depth of 4 inches.																													
<b>CUT FLOWERS</b> such as, but not limited to: Carnations, Chrysanthemums, Roses	Storage Rot ( <i>Botrytis cinerea</i> )	1 to 3 pts.	<b>DIP APPLICATION:</b> Dip prior to storage. Mix specified amount in 100 gallons of water. Agitation must be maintained in dip tanks.  <b>SPRAY APPLICATION:</b> Thoroughly spray plants prior to storage. Mix specified amount in 100 gallons of water.																												
	Bulb/Root/Stem Rot ( <i>Rhizoctonia solania</i> ) ( <i>Pellicularia solania</i> )	5 to 10 pts.	<b>BROADCAST APPLICATION:</b> Apply as a pre-plant broadcast spray prior to planting to 1,000 square feet of soil. Apply in sufficient water for uniform coverage. Thoroughly incorporate to a depth of 6 inches. <i>*For Bulbous Irises, use 5 to 7 pints and incorporate to a depth of 2 to 3 inches.</i>																												
		6 to 9 pts.	<b>IN-FURROW APPLICATION:</b> Apply as an in-furrow spray at planting time. Apply in 5 to 10 gallons of water to 1,000 linear feet of row. Direct spray into open furrow so that it covers entire furrow and bulbs. Close furrow in normal manner. For Black Rot control, always use the higher rate.																												
		3 pts.	<b>BULB DIP:</b> Use before planting or storing. It is important to maintain continuous agitation of dip solution to assure uniform application. Add 1% sticker to the solution. Utilize wire mesh for dipping and drain boards to return excess solution to dip tank. Dispose of unused dip solution according to "Storage and Disposal" section on this label. Mix in 3.2 gallons of water (7.5% solution) and soak bulbs for 5 minutes.																												
Black Rot ( <i>Sclerotinia sclerotiorum</i> )	12 fl. oz.	<b>BAND APPLICATION:</b> Mix in sufficient water for good coverage of soil. Spray a 10-inch band centered on row at planting time. Apply to 1,000 linear feet of row. Follow with 3 additional applications at 15-day intervals.																													
<b>GLADIOLUS</b>	Dry Rot ( <i>Stromatinia gladioli</i> ) ( <i>Sclerotinia gladioli</i> )	6 pts.	<b>BROADCAST APPLICATION:</b> Apply as a pre-plant broadcast spray prior to planting to 1,000 square feet of soil. Apply in sufficient water for uniform coverage. Thoroughly incorporate to a depth of 4 to 6 inches. Bulbs may be planted immediately after planting.																												
		8 pts.	<b>BAND APPLICATION:</b> Mix in sufficient water for good coverage of soil. Spray a 12-inch band centered on row at planting time. Apply to 1,000 linear feet of row. Thoroughly incorporate to a depth of 4 to 6 inches. Bulbs may be planted immediately after incorporation.																												
<b>LILIUM</b> (Lilies)	Root/Stem Rot ( <i>Rhizoctonia solani</i> ) ( <i>Pellicularia filamentosa</i> )	5 to 10 pts.	<b>BROADCAST APPLICATION:</b> Apply as a pre-plant broadcast spray prior to planting to 1,000 square feet of soil. Apply in sufficient water for uniform coverage. Thoroughly incorporate to a depth of 6 to 7 inches.																												
	Bulb/Crown Rot ( <i>Sclerotium rolfsii</i> ) ( <i>Pellicularia rolfsii</i> )	7 to 9 pts.	<b>IN-FURROW APPLICATION:</b> Apply as an in-furrow spray at planting time. Apply in 5 to 10 gallons of water to 1,000 linear feet of row. Direct spray into open furrow so that it covers entire furrow and bulbs. Close furrow in normal manner. For Black Rot control, always use the higher rate.																												
	Stem/Black Rot ( <i>Sclerotinia sclerotiorum</i> )	6 to 9 pts.	<b>BULB DIP:</b> Use before planting or storing. It is important to maintain continuous agitation of dip solution to assure uniform application. Add 1% sticker to the solution. Utilize wire mesh for dipping and drain boards to return excess solution to dip tank. Dispose of unused dip solution according to "Storage and Disposal" section on this label. Mix in 100 gallons of water and soak bulbs for 5 to 15 minutes.																												
<b>SOUTHERN PINE SEEDLINGS</b>	Root/Stem Rot Damping Off ( <i>Rhizoctonia spp.</i> ) ( <i>Pellicularia filamentosa</i> ) Southern Pine Needle Blight ( <i>Dothistroma pini</i> )	2 pts.	<b>BROADCAST APPLICATION:</b> Apply as a pre-plant broadcast spray prior to planting to 1,000 square feet of soil. Apply in sufficient water for uniform coverage. An additional ½ inch of water should be applied by irrigation prior to planting. Seed may be planted immediately after irrigation or within one week of this date.																												
<b>VEGETABLE BEDDING PLANTS</b> (Limited to only container-grown) Broccoli Brussels Sprouts Cabbage Cauliflower Peppers Tomatoes	Root/Stem Rot ( <i>Rhizoctonia solani</i> ) ( <i>Pellicularia filamentosa</i> )	6 to 12 fl. oz.	<b>SOIL DRENCH APPLICATION:</b> For use in nurseries or greenhouses, mix in 100 gallons of water and apply per the chart below.  <b>CONTAINER GROWN PLANTS</b> <table border="1"> <thead> <tr> <th rowspan="2">Depth of Soil (inches)</th> <th colspan="2">Coverage of Drench Mix</th> </tr> <tr> <th>Fl. Oz./Sq. Ft.</th> <th>(Sq. Ft./100 gals of soln)</th> </tr> </thead> <tbody> <tr> <td>≤ 2</td> <td>16</td> <td>800</td> </tr> <tr> <td>3</td> <td>24</td> <td>530</td> </tr> <tr> <td>≥ 4</td> <td>32</td> <td>400</td> </tr> </tbody> </table> If necessary, one repeat application may be made 4 to 6 weeks later.	Depth of Soil (inches)	Coverage of Drench Mix		Fl. Oz./Sq. Ft.	(Sq. Ft./100 gals of soln)	≤ 2	16	800	3	24	530	≥ 4	32	400														
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