

The tank containing BLOCKER 4F should be connected to the suction side of the irrigation pump or other pressurized equipment attached to the irrigation line. Agitation of the diluted BLOCKER 4F in the chemical source (or slurry) tank should be maintained during the entire application period.

BLOCKER™ is a trademark of AMVAC Chemical Corporation.

AMVAC Chemical Corporation
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STORAGE AND DISPOSAL

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



A FLOWABLE SOIL FUNGICIDE

FOR THE PREVENTION AND CONTROL OF CERTAIN SOILBORNE DISEASES ON THE CROPS LISTED HEREIN.

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	
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 in eyes	<ul style="list-style-type: none"> 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 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.
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 by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

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 a 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.

EPA Reg. No. 5481-472

EPA Est. No. 37429-GA-1



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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. Do not apply this product through any type of irrigation system. 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.

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

BLOCKER 4F is a preventative fungicide that can be used as a soil treatment for control of a variety of soilborne diseases on certain agricultural crops as listed in Table 1.

TABLE 1				
CROP	DISEASE	QTY PER ACRE	FL. OZ. BLOCKER 4F/ 1,000 FT. OF ROW	RECOMMENDED APPLICATION
Broccoli, Brussels Sprouts, Cabbage, Chinese Broccoli, Cauliflower, Chinese Cabbage (tight-headed varieties only), Collards*, Kale*, Mustard Greens* Do not exceed 30 lbs. of actual PCNB per acre in any one season regardless of the method of application or formulation used. *Use on collards, kale and mustard greens restricted to the State of Georgia	Clubroot (<i>Plasmodiophora brassicae</i>)	Mix 3 pints in 100 gallons of water. Use 0.5 to 0.75 pint of solution per plant.	n/a	TRANSPLANT SOLUTION: The specific dosage should be based on the severity of the disease infection. Maintain agitation to hold product in suspension. Thoroughly incorporate solution into the soil.
		5.67 gallons per acre. Apply in 25 gallons of water per acre or 5.5-fl. oz. per 100 ft. of row based on 40-inch row spacing.	55.5 fl. oz.	BAND APPLICATION: Spray as a 12-inch band centered on row and incorporate to a depth of 4 to 6 inches immediately prior to planting. May be used on direct seeded cole crops. Thoroughly incorporate solution into the soil.
		7.5 gallons per acre in 30 gallons of water.	n/a	BROADCAST APPLICATION: Apply as a pre-plant broadcast spray prior to planting. Thoroughly incorporate to a depth of 4 to 6 inches using a disc or other suitable equipment. Thoroughly incorporate solution into the soil.
	Wire Stem or Black Rot (<i>Corticium solani</i>)	2.8 to 3.75 gallons per acre in 50 gallons of water per acre.	n/a	BROADCAST DRENCH APPLICATION: Apply as a soil drench at the time of or immediately after seeding.
		1.9 to 2.8 gallons per acre. Apply in 35 gallons of water per acre based on 40-inch row spacing.	18 to 27 fl. oz.	ROW DRENCH TREATMENTS: Spray as an 8-inch band centered on the row at time of or immediately after seeding.
Beans (Dry, Snap or Succulent) Do not exceed 10 lbs. of actual PCNB per acre in any one season regardless of the method of application or formulation used.	Root/Stem Rot (<i>Rhizoctonia solani</i>)	2 to 3 pints per acre (1.5 to 2 pints in AZ/CA) based on a 36-inch row spacing. Apply in 8 to 10 gallons of water per acre.	2.2 to 3.3 fl. oz. (1.7 to 2.2 fl. oz. in AZ/CA)	Apply as a directed spray in the seed furrow and to the covering soil at planting time. Use lower rate on lighter soils. Avoid application directly to seed since delayed emergence may occur.
Beans (Snap or Dry)* Do not exceed 10 lbs. of actual PCNB per acre in any one season regardless of the method of application or formulation used. *Not for use in California on Snap or Dry Beans for control of White Mold.	White Mold (<i>Sclerotinia sclerotiorum</i>)	4 pints per acre. Apply in 8 to 10 gallons of water per acre based on 36-inch row spacing.	4.4 fl. oz.	BAND ROW TREATMENT: Apply specified dosage as a spray on 8-inch band centered on a row immediately after or at time of planting. Avoid application directly to seed since delayed emergence may occur. If disease is severe, additional applications may be made at 2 to 3 week intervals directing the spray to the soil at the base of the plants. Do not apply after start of pod formation. Do not feed treated vines to livestock.
Garlic* Do not exceed 20 lbs. of actual PCNB per acre in any one season regardless of the method of application or formulation used. *Not for use in California on garlic.	White Rot (<i>Sclerotium cepivorum</i>)	5 gallons per acre. Apply in 100 gallons water per acre based on 24-inch row spacing.	29 fl. oz.	IN-FURROW APPLICATION: Apply as an in-furrow spray at planting time. Attach a spray rig to the machine planter and spray 8 to 12-inch band using 2 nozzles per furrow. Direct front nozzle to spray the seed as it is dropped. Direct the rear nozzle to spray the covering soil.
		2.5 gallons per 1,000 lbs. of seed cloves.	n/a	CLOVE TREATMENTS: Mix in sufficient water to apply dosage as a uniform mist spray for complete coverage of treated cloves.
Peppers, Tomatoes* Do not exceed 7.5 lbs. of actual PCNB per acre in any one season regardless of the method of application or formulation used. *Not for use in California on tomatoes.	Southern Blight (<i>Sclerotium rolfsii</i>)	4.5 to 7.5 pints in 100 gallons of water. Use 0.5 pint of solution per plant.	n/a	TRANSPLANT SOLUTION: Apply at the time of transplanting. The solution should be agitated often to maintain a uniform mixture to assure proper dosage.
		1.2 to 1.875 gallons per acre. Apply in 8 to 10 gallons of water per acre based on 36-inch row spacing.	10.6 to 16.7 fl. oz.	IN-FURROW APPLICATION: Apply as in-furrow sprays to the open "V" trench just prior to planting. When cultivating, set plows as flat as possible to avoid getting untreated soil against stems or plants.
Peanuts Do not exceed 10 lbs. of PCNB active ingredient per acre in any one season. Do not apply within 45 days of harvest. Do not feed treated vines to livestock. Do not allow hogging down of peanuts.	Root/Stem Rot (<i>Rhizoctonia solani</i>)	2 to 4 pints per acre. Apply in 8 to 10 gallons of water per acre based on 36-inch row spacing.	2.2 to 4.4 fl. oz.	PRE-PLANT SOIL MIX: Apply specified dosage as a spray in 8 to 12-inch band centered on the row and incorporated to a depth of 2 to 4 inches. Application may be made simultaneously with planting using suitable application equipment. At Planting: Apply specified dosage as a directed in-furrow spray to the seed and surrounding soil at planting time. Do not use in California.
		Southern Blight (<i>Sclerotium rolfsii</i>)	2.5 gallons per acre. Apply in 8 to 10 gallons of water per acre based on 36-inch row spacing.	22 fl. oz.
	6.5 pints per acre. Apply in 8 to 10 gallons of water per acre based on 36-inch row spacing.	7.2 fl. oz.	AT CULTIVATION: Apply specified dosage at cultivation. Do not apply more than 3 times per crop season. Attach 2 spray nozzles on the inside of the cultivator sweeps (one per side) and adjust so as to treat a total band of 12 inches centered on the row. Do not pile untreated soil on crown of plant.	

TABLE 1 (cont'd)				
CROP	DISEASE	QTY PER ACRE	FL. OZ. BLOCKER 4F/ 1,000 FT. OF ROW	RECOMMENDED APPLICATION
Potatoes* Do not exceed 20 lbs. of actual PCNB per acre in any one season regardless of the method of application or formulation used. California Only: Do not exceed 16 lbs. of actual PCNB per acre in any one season regardless of the method of application.	Stem Canker/Black Scurf (<i>Rhizoctonia solani</i>)	5 to 10 pints per acre. Apply in 10 to 20 gallons of water per acre based on 34-inch row spacing.	5.2 to 10.4 fl. oz.	BAND APPLICATION: Spray an 8½-inch band in seed furrow at time of planting. Direct spray into furrow over the seed and cover as a part of the hilling operation during planting.
Cotton Do not exceed 2 lbs. of PCNB active ingredient per acre in any one season.	Damping Off (<i>Rhizoctonia solani</i>)	1.5 to 3 pints per acre (2 to 4 pints in AZ/CA). Apply in 5 to 15 gallons of water per acre based on 40-inch row spacing.	1.8 to 3.6 fl. oz. (2.4 to 4.8 fl. oz. in AZ/CA)	IN-FURROW APPLICATION: Apply to soil around seed and to the covering soil as it lies in the furrows. Two (2) nozzles work best. Center the front nozzle over the open furrow to spray the soil surrounding the seed. Spray the covering soil from the back nozzle as it fills the furrow. The higher rate should be used on heavy soils or when weather conditions are expected to be favorable to rapid germination. The higher rate should also be used on fields that have a history of disease problems or when minimum or low till programs are utilized. Do not allow livestock to graze or feed on cotton foliage in PCNB-treated fields.

ROTATION RESTRICTIONS: Do not plant root crops in PCNB-treated fields within 12 months of broadcast or banding applications unless PCNB is registered for use on those crops.

Application to Beans Through Sprinkler Irrigation Equipment

Apply BLOCKER 4F only to bean foliage (snap or dry) before the start of pod formation only through overhead sprinklers, including center pivot, solid set or portable (wheel move) irrigation systems. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Specialists, 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 systems 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.

The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of the 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 motor stops. The irrigation line or water pump must include a functional pressure switch, which 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. Spray mixture in the chemical supply tank must be agitated at all times, otherwise settling and uneven application may occur. Do not apply when wind speed favors drift beyond the area intended for treatment. Apply sprinkler irrigation applications in 0.1 to 0.5 inches of water.

CALIBRATION AND APPLICATION TECHNIQUES

Center Pivot Irrigation Equipment: Operate system and injection equipment at normal pressures recommended by the manufacturer of injection equipment used. Fill tank of injection equipment with water. Operate system for one complete cycle, measuring the time required, amount of water injected and acreage contained in cycle. Mix recommended amount of BLOCKER 4F for acreage to be covered into the same amount of water used during calibration and inject into system continuously for one revolution. Shut off injection equipment after one revolution, but continue to operate irrigation system until BLOCKER 4F has been cleared from the last sprinkler head.

Solid-Set And Portable (Wheel Move) Irrigation Equipment - Determine acreage covered by sprinkler. Fill tank of injection equipment with water and adjust flow to use contents over 10-30 minute period. Mix desired amount of BLOCKER 4F for acreage to be covered into quantity of water used during calibration and operate entire system at normal pressures recommended by the manufacturer of injection equipment used for amount of time established during calibration. BLOCKER 4F should be injected at the end of the irrigation cycle or as a separate application. Stop injection equipment after treatment is complete and continue to operate irrigation system until BLOCKER 4F has been cleared from the last sprinkler head.

Do not run irrigation system without safety valves or other devices to prevent back siphoning of BLOCKER 4F into water source. Irrigation water treated with BLOCKER 4F should be maintained on the treated area until the water is absorbed into the soil.