

RESTRICTED USE PESTICIDE

PATS

Due to acute oral and dermal toxicity and avian toxicity

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered the Certified Applicator's certification.

Riverside Trademark

PHORATE 20-G

20% Granular Systemic Low-Odor Insecticide

ACCEPTED

JUN 19 1989

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 9779-293

ACTIVE INGREDIENTS

Phorate (O,O-diethyl S-[(ethylthio)methyl]-phosphorodithioate).....	20.0Z
INERT INGREDIENTS.....	80.0Z
	Total 100.0Z

STOP--READ LABEL BEFORE USING.

KEEP OUT OF REACH OF CHILDREN

DANGER
PELIGRO
POISON
VENENO

Skull & Crossbones
Can Cause Death

PRECAUCION
AL USUARIO

Si usted no lee ingles,
no use este producto
hasta que la etiqueta
le haya sido explicada
ampliamente.

Statement of Practical Treatment

FIRST AID TREATMENT+ Call a doctor (physician), clinic, or hospital immediately. Explain that the victim has been exposed to Phorate and describe his condition.

IF BREATHING HAS STOPPED, start artificial respiration immediately and maintain until doctor sees victim.

IF SWALLOWED, call a physician or poison control center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger, or if available, by administering syrup of ipecac. DO NOT INDUCE VOMITING OR GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

IN CASE OF CONTACT, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. See doctor immediately.

See additional PRECAUTIONARY STATEMENTS on side panel.

EPA Reg. No. 9779-293

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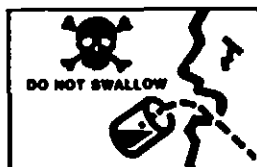
EPA Est. No. 34/04-NP-1

Manufactured For
RIVERSIDE/TERRA CORP.

NET CONTENTS
LBS.

Terra Centre, 600 Fourth Street, Sioux City, Iowa 51101
Riverside Serves Agriculture. Agriculture Serves Everyone.

PRECAUTIONARY STATEMENTS
DANGER
HAZARDS TO HUMANS AND DOMESTIC ANIMALS



CAN KILL IF SWALLOWED
This product can kill you if swallowed, even in small amounts: spray mist may be fatal if swallowed.



CAN KILL BY SKIN CONTACT
This product can kill you if touched by hands or spilled or splashed on skin, in eyes or on clothing (liquid goes through clothes).

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CAN KILL IF BREATHED
This product can kill you if vapors or spray mist are breathed.

PERSONAL PROTECTIVE EQUIPMENT

WEAR THE FOLLOWING PROTECTIVE CLOTHING DURING LOADING, APPLICATION, EQUIPMENT REPAIR/CLEANING, AND DISPOSAL OF THE PESTICIDE. A protective suit of one or two pieces covering all parts of the body except head, hands, and feet; chemical resistant gloves; chemical resistant shoes, shoe covering, or boots. Wear goggles and a pesticide respirator approved by NIOSHA or MSHA.

Unless a chemical resistant protective suit is otherwise required, mixers/loaders must wear a chemical resistant apron and goggles or a face shield.

The respirator need not be worn during equipment repair and cleaning and during early reentry after dust has settled.

IF APPLICATION IS PERFORMED USING AN ENCLOSED CAB OR COCKPIT, THE FOLLOWING PROTECTIVE CLOTHING AND EQUIPMENT MAY BE WORN AS AN ALTERNATE: Long-sleeved shirt and long-legged pants; shoes and socks. Chemical resistant gloves must be available in the cab or cockpit and must be worn when exiting. This clothing is inadequate to protect you during equipment repair or cleaning, reentry, or pesticide disposal work. Do not allow contaminated clothing to come in contact with the insides of the cab.

IMPORTANT! If pesticide comes in contact with skin, wash off with soap and water. Always wash hands, face, and arms with soap and water before smoking, eating, drinking, or using the toilet.

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AFTER WORK: Before removing gloves, wash them with soap and water. Take off all work clothes and shoes. Shower using soap and water. Wear clean clothes. Do not reuse contaminated clothing. Personal clothing worn during work must be laundered separately from household articles. Store protective clothing separately from personal clothing. Clean or launder protective clothing after each use. Respirators must be cleaned and filters replaced according to instructions included with the respirator. Clothing and protection equipment heavily contaminated must be destroyed according to state and local regulations. **HEAVILY CONTAMINATED CLOTHING CANNOT BE ADEQUATELY DECONTAMINATED.**

DURING AERIAL APPLICATION, HUMAN FLAGGERS ARE PROHIBITED UNLESS IN A TOTALLY ENCLOSED VEHICLE.

WORK SAFETY RULES

REPEATED EXPOSURES TO CHOLINESTERASE INHIBITORS SUCH AS ARE CONTAINED IN THIS PRODUCT MAY, WITHOUT WARNING, CAUSE PROLONGED SUSCEPTIBILITY TO VERY SMALL DOSES OF ANY CHOLINESTERASE INHIBITOR.

Persons working with this product should have frequent blood tests of their cholinesterase levels. If the cholinesterase level falls below a critical point, no further exposure should be allowed until it has been determined by means of blood tests that the cholinesterase level has returned to normal. Before using this product consult the National Pesticide Telecommunications Network for recommendations regarding such blood tests, poisoning management, emergency treatment, and other information regarding the toxicity of phorate. The toll free number for the National Pesticide Telecommunications Network is 1-800-858-7378.

If handled indoors provide mechanical exhaust ventilation.

Keep all unprotected persons, children, livestock, and pets away from treated areas or where there is danger of drift.

Do not rub eyes or mouth with hands. If you feel sick in any way, STOP work and get help right away. See First Aid (Practical Treatment) section.

POISON SIGNS (Symptoms) Phorate is a very dangerous poison. It rapidly enters the body on contact with all skin surfaces and eyes. Clothing wet with this material must be removed immediately. Exposed persons must receive prompt medical treatment or they may die. Some of the signs and symptoms of poisoning are headache, nausea, vomiting, cramps, weakness, blurred vision, pin-point pupils, tightness in chest, labored breathing, nervousness, sweating, watering of eyes, drooling or frothing of mouth and nose, muscle spasms and coma.

NOTE TO PHYSICIAN: Antidote - administer atropine sulfate in large doses. TWO to FOUR mg. intravenously or intramuscularly as soon as cyanosis is overcome. Repeat at 5 to 10 minute intervals until signs of atropinization appear. 2-PAM chloride is also antidotal and may be administered in conjunction with atropine. DO NOT GIVE MORPHINE OR TRANQUILIZERS. Phorate is a strong cholinesterase inhibitor affecting the central and peripheral nervous systems and producing cardiac and respiratory depression. At first sign of pulmonary edema, the patient should be given supplemental oxygen and treated symptomatically. Continued absorption of the poison may occur and fatal relapses have been reported after initial improvement. VERY CLOSE SUPERVISION OF THE PATIENT IS INDICATED FOR AT LEAST 48 HOURS.

POST TREATED AREA: Consult your State Agricultural Extension Service or Experiment Station regarding posting treated areas.

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ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to fish and wildlife. Birds feeding in treated areas may be killed. Do not apply directly to water or wetlands (swamps, bogs, marshes, and pot-holes). Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Collect or incorporate granules that are spilled during loading or are visible on soil surface in turn areas. Do not contaminate water when disposing of equipment washwaters.

DIRECTIONS FOR USE

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

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

NOT FOR USE OR STORAGE IN OR AROUND THE HOME.

RE-ENTRY STATEMENTS

After dusts have settled, do not enter or allow entry into the treated area until the 48 hour reentry interval has expired, unless the person entering the treated area is wearing the personal protective equipment listed below for early reentry.

For early reentry into treated areas, wear a protective suit of one or two pieces covering all parts of the body except head, hands, feet; chemical-resistant gloves and chemical resistant shoes, shoe coverings, or boots.

NOTICE TO CROP OWNERS

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. In case of accidental exposure follow the information given under "STATEMENT OF PRACTICAL TREATMENT" and have exposed person(s) see a physician. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is a reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information: DANGER. Area treated with Phorate on (date). Do not enter without appropriate protective clothing for 48 hours. In case of accidental exposure immediately remove contaminated clothing, wash the affected area, contact your supervisor, and have him take you to the doctor.

GENERAL DIRECTIONS

When using PHORATE 20-G, pour downwind to minimize exposure to handlers. Spillage should be removed and burned. Apply PHORATE 20-G with a granular pesticide applicator properly calibrated to assure accurate placement and proper dosage.

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STORAGE AND DISPOSAL

DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE OR DISPOSAL.

STORAGE

Store in a dry location away from children, animals, foods, feeds, seeds, and other agricultural chemicals. Keep container closed when not using. Do not allow water into container as this may cause deterioration of product. Handle in accordance with information given under PRECAUTIONARY STATEMENTS. Keep storage area locked when not in use. In the event of spillage or leakage, scrape up and dispose of in accordance with information given under PESTICIDE DISPOSAL. Repackage and relabel useable product in a sound container of a type approved by the U. S. Department of Transportation. In case of fire or other emergency, report at once by toll-free telephone to 800-424-9300.

DISPOSAL

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: 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.

TYPICAL APPLICATION RATES FOR VARIOUS ROW SPACINGS
Rate-Oz./1,000 Ft. of Row

	1.2 oz.	3 oz.	4.5 oz.	6 oz.	8 oz.	10 oz.	12 oz.	14 oz.	16 oz.	18 oz.
40"			3.7	4.9	6.5	8.2	9.8	11.4	13.1	14.7
38"			3.9	5.2	6.9	8.6	10.3	12.0	13.7	15.5
36"			4.1	5.4	7.3	9.1	10.9	12.7	14.5	16.3
34"			4.3	5.8	7.7	9.6	11.5	13.5	15.4	17.3
32"			4.6	6.1	8.2	10.2	12.2	14.3	16.3	18.4
30"			4.9	6.5	8.7	10.9	13.1	15.2	17.4	19.6
26"			5.7	7.5	10.0	12.6	15.1	17.6	20.1	22.6
24"			6.1	8.2	10.9	13.6	16.3	19.1	21.8	24.5
20"		4.9								
18"		5.4								
16"		6.1								
12"		8.2								
8"	4.9	12.2								
6"	6.5	16.3								

EQUIVALENT POUNDS PER ACRE

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CROP	PESTS	RATE	APPLICATION	REMARKS
BEANS	Mexican bean beetles	4.5-9.4 ozs. per 1,000 ft. of row for any row spacing (minimum 30-inch spacing)	Distribute the granules evenly in the row to the side of the seed at planting.	Do not feed the foliage of treated beans within 60 days of treatment.
	Aphids Leafhoppers Lygus bugs Mites Seedcorn maggots Thrips	4.5-7.0 ozs. per 1,000 ft. of row for any row spacing (minimum 30-inch spacing)	Do not place PHORATE granules in direct contact with the seed.	
FIELD CORN	Corn rootworms Mites	6.0 ozs. per 1,000 ft. of row for any row spacing (minimum 30-inch spacing)	Place granules in a 7-inch band over the row directly behind the planter shoe in front of the press wheel.	Do not place PHORATE granules in direct contact with seed. One additional application can be applied at cultivation or over corn later in the season.
Application at Planting Time	Wireworms (North Central and Southeastern States only)			
	Seed corn beetle (Iowa and Illinois only)			
Application at Cultivation	Reduction of white grubs (North Central States only)			
	Corn rootworms		Apply granules at time of cultivation in a band at base of plants just ahead of cultivator shovels so as to cover granules with soil. Apply in June as soon as rootworm activity is observed.	Do not make any applications of PHORATE after cultivation treatment.
	Chinch bug nymphs (Colorado, Kansas, Nebraska)	Apply granules at time of cultivation in a band at base of plants just ahead of cultivator so as to cover granules with soil. Apply as soon as chinch bug nymphs are observed at base of plants. Granules must be placed at the infested region of the plants and adequately covered with soil.	Later infestations of Chinch bugs may not be controlled. Do not make any applications of PHORATE after cultivation treatment.	

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CROP	PESTS	RATE	APPLICATION	REMARKS
FIELD CORN Application Over the Plant	European corn borer (1st brood)	Broadcast the granules over the field by air or ground equipment at a rate of 5.0 lbs. per acre.	Apply granules into the whorl of the plant prior to tassel emergence.	Do not graze or cut for forage within 30 days of treatment. Do not make more than one appli- cation over the plant. Do not apply under pro- longed drought conditions. Consult your state experiment station or state extension service for proper timing of application.
	Corn leaf aphids Mites		Apply granules into the whorl of the plant.	
SWEET CORN Application at planting Time	Corn rootworms Mites	6.0 ozs. per 1,000 ft. of row for any row spacing (minimum 30- inch row spacing)	Place granules in a 7-inch band over the row directly behind the planter shoe in front of the press wheel.	Do not place PHORATE granules in direct contact with seed. One additional treat- ment can be made at cultivation.
	Seed corn beetle (Iowa & Illinois only)			
Application at Cultiva- tion	Reduction of wire- worms (North Central and Southeastern States only)			
	Corn rootworms		Apply granules at time of cultiva- tion in a band at base of plants just ahead of cul- timator shovels so as to cover granules with soil. Apply in June as soon as rootworm activity is observed.	Do not make any later applica- tions after cultivation treatment.

CROP	PESTS	RATE	APPLICATION	REMARKS
COTTON At Planting Time	Early Season Aphids Leaf Miners Mites Thrips	3.0 ozs. per 1,000 ft. of row for any row spacing (minimum 36- inch spacing)	Distribute the granules evenly in the furrow at planting time. Soil temperature, moisture, and tilth should be favorable for good germination and emergence.	Suggested for areas where a limited period of protection against early season pests is necessary for good cotton growth. Use 1.5 lbs. PHORATE 20-G per acre for hill-dropped cotton.
	Aphids Black cutworms Leafhoppers Leaf miners Mites Thrips White flies	6.0-9.0 ozs. per 1,000 ft. of row for any row spacing (minimum 36- inch spacing)	Distribute the granules evenly in the furrow at planting time. Soil temperature, moisture and tilth should be favor- able for good germination and emergence. Under adverse conditions plant stand may be affected.	Recommended for areas requiring an extended period of mite control as well as early season protection against other cotton pests. The higher rate is suggested for heavier soils.
At Side- Dressing Time (Irrigated cotton only)	Mites from spring to early summer	9.0-12.0 ozs. per 1,000 ft. of row for any row spacing (minimum 36- inch spacing)	Incorporate granules into soil as a side-dress application deep enough to avoid disturbance by future cultiva- tions.	Irrigate as soon as possible after treatment. Do not apply later than 60 days before harvest.

CROP	PESTS	RATE	APPLICATION	REMARKS
PEANUTS	Leafhoppers Thrips	5.5 ozs. per 1,000 ft. of row for any row spacing (minimum 24- inch spacing)	Distribute the granules evenly in the furrow at planting time. For best results, plant peanuts when soil tempera- tures are favorable for establishing good peanut stands.	No not graze or feed treated hay or forage to livestock.
	Leafhoppers Southern corn rootworms	11.0 ozs. per 1,000 ft. of row for any row spacing (minimum 24- inch spacing)	Distribute the granules as a band over the fruiting zone at pegging time. Work into the top few inches of soil immediat- ly.	This treatment will also control late infestation of leafhoppers. Do not graze or feed treated hay or forage.
POTATOES	Aphids Flea beetle larvae and reduction of flea beetle adults Leafhoppers Leafminers Psyllids Wireworms Colorado potato beetle (early season control)	Light or Sandy Soils: 11.3 ozs. per 1,000 ft. of row for any row spacing (mini- mum 32-inch spacing) Heavy or Clay Soils: 17.3 ozs. per 1,000 ft. of row for any row spacing (mini- mum 32-inch spacing) Heavy or Clay Soils: 17.3 ozs. per 1,000 ft. of row for any row spacing (mini- mum 32-inch spacing)	Distribute the granules evenly in the furrow or granules may be banded on each side of the row at planting time.	Wait 90 days after treatment before harvest- ing potatoes.

CROP	PESTS	RATE	APPLICATION	REMARKS
SORGHUM	Aphids (Greenbugs)			
At Planting Time		6.0 ozs. per 1,000 ft. of row for any row spacing (minimum 30-inch spacing)	Place granules 2 inches to side and 1 inch below the seed at planting or as a 7-inch band over the row just prior to press wheel.	Do not place PHORATE granules in direct contact with seed. A second application of granules may be applied topically after the season.
Application at Cultivation	Chinch bug nymphs (Colorado, Kansas, and Nebraska)		Apply granules at time of cultivation in a band at base of plants or over the row just ahead of cultivator so as to cover granules with soil. Apply as soon as chinch bug nymphs are observed at base of plants. Granules must be placed at the infested region of the plants and adequately covered with soil.	Later infestations of chinch bugs may not be controlled. Do not make any applications of PHORATE after cultivation treatment. Do not feed foliage before rain harvest.
Application Over the Plant	Aphids (Greenbugs) Banks grass mites (excluding Trans-Pecos area of Texas)	4.9 lbs. per acre	Broadcast granules into the whorls of the plants by air or ground equipment.	Make only one application after plant emergence. Do not apply within 28 days of harvest.
SOYBEANS	For the early season control of Mexican bean beetle and leafhoppers	9.0 lbs. per 1,000 ft. of row for any row spacing (minimum 30-inch row spacing)	Distribute the granules evenly in the row to the side of the seed at planting time.	Do not place PHORATE granules in direct contact with the seed. Do not feed the foliage of treated soybeans.
	Seedcorn maggots	9.0 ozs. per 1,000 ft. of row for any row spacing (minimum 30-inch row spacing)	Distribute the granules evenly in the row to the side of the seed at planting time, or place granules in a 7" band over the row directly behind the planter shoe in front of the press wheel.	Crop injury may result when preplant incorporated or preemergence applications of metribuzine herbicides are used in conjunction with this product or other soil-applied organophosphate pesticides.

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CROP	PESTS	RATE	APPLICATION	REMARKS
SUGAR BEETS	Aphids Beet root maggots Leafhoppers Leafminers Mites	4.5 ozs. per 1,000 ft. of row for any row spacing (minimum 20- inch spacing)	Application should be made by drill- ing or broadcast at seeding time.	Do not place PHORATE granules in direct contact with the seed. Do not apply within 30 days of harvest. Do not feed sugar beet tops or silage to dairy cattle. Consult your state experiment station or state extension service for proper timing of application in your area.
	Aphids Mites	4.9-7.5 lbs. per acre	Apply to foliage when plants are dry. Use the higher rate to dense foliage for good coverage. Foliar application by air may be used for aphid control when wet soil prohibits ground application.	
SUGAR CANE (Florida)	Wireworms	19.5 lbs. per acre	Apply in a 10-12 inch band directly on the seed piece and surrounding soil in the open furrow immediately before covering.	Do not graze or feed treated hay or forage to livestock.
WHEAT Application at planting time	Aphids (Western and North Central States Only) Grasshoppers Hessian fly	1.2 ozs. per 1,000 ft. of row for any row spacing (minimum 8- inch spacing)	Apply the granules in the seed furrow at planting time.	Do not feed or graze foliage within 45 days of treatment. Do not make any later applica- tions after planting time treatment.
Application over the plant	Aphids (Western States only)	4.9 lbs. per acre	Broadcast the granules evenly over the field by air equipment when aphids first appear.	Do not apply over plants if appli- cation was made at planting time. Do not make more than one applica- tion over the plants. Do not apply within 70 days of harvest of grain. Do not feed or graze foliage within 28 days of treat- ment.

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CALIBRATION INFORMATION

FIRST READ LABEL. It is essential that applicator equipment be properly set to deliver the labeled rate. The chart below contains suggested starting gauge settings for calibration at planting speeds of 5 or 7 mph and application rates of 4.5, 6.0, or 9.0 oz./1,000 ft. of row.

SUGGESTED GRANULAR APPLICATOR SETTING						
Applicator	At 5 MPH			At 7 MPH		
	4.5 oz.	6.0 oz.	9.0 oz.	4.5 oz.	6.0 oz.	9.0 oz.
New Gandy	15	18	22	18	21	25
New Noble	6	8	11	8	11	14
Old Noble	8	11	16	12	15	22
International Harvester	1/5	1/7	2/1	1/7	2/0	2/8
New John Deere	9	13	10	13	19	26
Newest John Deere ¹	9	11	14	11	13	17
Old John Deere	1/23	1/26	2/3	1/26	1/32	2/14
Allis Chalmers	4	5	7	4	5	7

¹With aluminum funnel.

NOTE: The settings in this table SHOULD ONLY BE USED AS STARTING POINTS. Continually check the amount of PHORATE 20-G used against a known length of row and make further adjustments accordingly. Also check calibration occasionally to make sure equipment wear, changing moisture conditions, or other factors have not caused a change in flow rate.

NOTICE: Seller warrants that the product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to Seller and Buyer assumes the risk of any such use.