

321-6786.BLD

Base Reg. (6786)

U.S. LABEL

Reason to Issue: To revise ingredients statement to show aromatic petroleum distillates as an inert ingredient.

Date of Draft: 7/18/89 (M)
Supersedes Draft Dated: 4/18/89
and Pre-Reg. Draft Dated: 9/1/88

EPA Reg. No. 3125-321

RESTRICTED USE PESTICIDE

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

BOLSTAR® 6

Emulsifiable Insecticide

FOR THE CONTROL OF CERTAIN INSECTS ON COTTON AND SOYBEANS

Contains 6 lbs. O-Ethyl O-[4-(methylthio)phenyl] S-propyl phosphorodithioate per gallon.

ACTIVE INGREDIENTS:
O-Ethyl O-[4-(methylthio)phenyl] S-propyl phosphorodithioate 64%

INERT INGREDIENTS: 36%
100%

(This product contains aromatic petroleum distillates.)

STOP - READ THE LABEL BEFORE USE

KEEP OUT OF THE REACH OF CHILDREN

WARNING

See Statements of Practical Treatment and Other Precautions on Side Panel

EPA Reg. No. 3125-321
EPA Est. 3125-MO-1

U.S. Patent No. 3,947,529

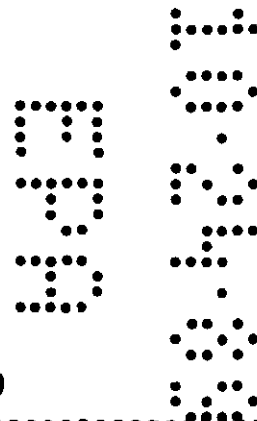
DO NOT USE, POUR, SPILL, OR STORE NEAR HEAT OR OPEN FLAME

AVISO

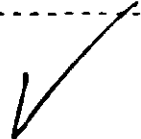
PRECAUCION AL USUARIO: Si usted no puede leer o entender inglés, no use este producto hasta que la etiqueta le haya sido explicada ampliamente. (TO THE USER: If you cannot read or understand English, do not use this product until the label has been fully explained to you.)

NET _____ GALLONS

MOBAY CORPORATION
A Bayer USA INC. COMPANY
AGRICULTURAL CHEMICALS DIVISION
Box 4913, Kansas City, Missouri 64120



Not Reviewed. Registration status to be determined by the Administrator of the Agency for Registration of Pesticides.



BOLSTAR 6 insecticide

DIRECTIONS FOR USE

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

IMPORTANT: Read these entire Directions and Conditions of Sale before using BOLSTAR 6 emulsifiable insecticide.

CONDITIONS OF SALE: THE DIRECTIONS ON THIS LABEL WERE DETERMINED THROUGH RESEARCH TO BE THE DIRECTIONS FOR CORRECT USE OF THIS PRODUCT. THIS PRODUCT HAS BEEN TESTED FOR A RANGE OF WEATHER CONDITIONS SIMILAR TO THOSE WEATHER CONDITIONS THAT ARE ORDINARY AND CUSTOMARY IN THE GEOGRAPHIC AREA WHERE THE PRODUCT IS USED. INSUFFICIENT CONTROL OF PESTS AND/OR INJURY TO THE CROP TO WHICH THE PRODUCT IS APPLIED MAY RESULT FROM THE OCCURRENCE OF EXTRAORDINARY OR UNUSUAL WEATHER, OR FROM FAILURE TO FOLLOW LABEL DIRECTIONS. IN ADDITION, FAILURE TO FOLLOW LABEL DIRECTIONS MAY CAUSE INJURY TO OTHER CROPS, ANIMALS, MAN, OR THE ENVIRONMENT. MOBAY OFFERS, AND THE BUYER ACCEPTS AND USES, THIS PRODUCT SUBJECT TO THE CONDITIONS THAT EXTRAORDINARY OR UNUSUAL WEATHER, OR FAILURE TO FOLLOW LABEL DIRECTIONS ARE BEYOND THE CONTROL OF MOBAY AND ARE, THEREFORE, THE RESPONSIBILITY OF THE BUYER.

BOLSTAR 6 emulsifiable insecticide may be used for the control of susceptible as well as resistant Heliothis virescens (tobacco budworm) and Heliothis zea (cotton bollworm) on cotton. Control or suppression of additional insects as noted under "Recommended Applications" may also be obtained. BOLSTAR 6 emulsifiable insecticide may be used for the control of certain insects infesting soybeans.

USE IN CHEMIGATION SYSTEMS

Types of Irrigation Systems

Apply BOLSTAR 6 only through sprinkler, including center pivot, lateral move, side roll, or overhead solid set irrigation systems. Do not apply BOLSTAR 6 through any other type of irrigation system.

GENERAL DIRECTIONS FOR ALL RECOMMENDED TYPES OF IRRIGATION SYSTEMS

Uniform Water Distribution and System Calibration

The irrigation system must provide uniform distribution of treated water. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.

The system must be calibrated to uniformly apply the rates specified for chemigation application for specific crops. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Chemigation Monitoring

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.

Drift

Do not apply when wind speed favors drift beyond the area intended for treatment.

BOLSTAR 6 insecticide

USE IN CHEMIGATION SYSTEMS (Continued)

Required System Safety Devices

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 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.

Using Water from Public Water Systems

DO NOT APPLY BOLSTAR 6 THROUGH ANY IRRIGATION SYSTEM PHYSICALLY CONNECTED TO A PUBLIC WATER SYSTEM. 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.

BOLSTAR 6 may be applied through any of the recommended types of irrigation systems which may be supplied by a public water system only if the water from the public water system is discharged into a reservoir tank prior to pesticide introduction. There shall 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. Before beginning chemigation, always make sure that the air gap exists and that there is no blockage of the overflow of the reservoir tank.

Any irrigation system using water supplied from a public water system must also meet the following requirements.

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 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.

BOLSTAR 6 insecticide

USE IN CHEMIGATION SYSTEMS (Continued)

Using Water from Public Water Systems (Continued)

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops or in cases where there is no water pump, 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) 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.

Agitation

For application of BOLSTAR 6 alone, a chemical supply tank is not necessary for premixing since BOLSTAR 6 mixes well with water in the irrigation line. If a chemical supply tank is used, for application of BOLSTAR 6 alone or in combination with other chemicals, constant strong mechanical or hydraulic agitation must be maintained in the chemical supply tank during the entire period of application.

Chemical Supply Tank Dilution

If a chemical supply tank is used, you must determine the required amounts of BOLSTAR 6 and water to mix in the tank.

The amount of BOLSTAR 6 needed equals the number of pints of BOLSTAR 6 to be applied per acre multiplied by the number of acres to be chemigated.

The amount of emulsion needed equals the gallons of emulsion delivered per hour by the injection pump multiplied by the number of hours chemigation will take place.

The amount of water needed equals the amount of emulsion needed minus the amount of BOLSTAR 6 needed.

For example, if you want to apply 1 pint of BOLSTAR 6 per acre to 130 acres in 20 hours and your injection pump delivers 15 gallons per hour, you need: 1 pint BOLSTAR 6 per acre X 130 acres = 130 pints or 16.25 gallons of BOLSTAR 6. And, you need: 15 gallons per hour X 20 hours = 300 gallons of emulsion, minus 16.25 gallons of BOLSTAR 6 = 283.75 gallons of water.

Cleaning the Chemical Injection System

In order to accurately apply pesticides, the chemical injection system must be kept clean; free from chemical or fertilizer residues and sediments. Refer to your owners manual or ask your equipment supplier for the cleaning procedure for your injection system.

Flushing the Irrigation System

At the end of the application period, allow time for all lines to flush the pesticide through all nozzles before turning off irrigation water. To ensure the lines are flushed and free of pesticides, a dye indicator may be injected into the lines to mark the end of the application period.

BOLSTAR 6 insecticide

USE IN CHEMIGATION SYSTEMS (Continued)

SPRINKLER IRRIGATION SYSTEMS

All directions and requirements listed under the GENERAL DIRECTIONS AND REQUIREMENTS FOR ALL RECOMMENDED TYPES OF IRRIGATIONS SYSTEMS section of this label must be followed for sprinkler irrigation systems.

In addition, the following directions apply to sprinkler irrigation systems.

Do not apply when wind speed favors drift beyond the area intended for treatment.

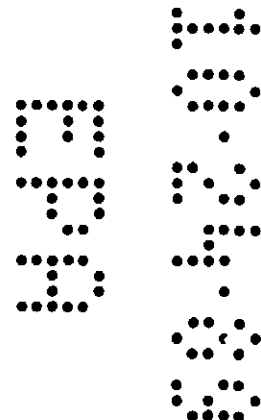
It is recommended that nozzles in the immediate area of control panels, chemical supply tanks, pumps and system safety devices be plugged to prevent chemical contamination of these areas.

Center-Pivot and Automatic-Move Linear Systems

Inject the specified dosage per acre continuously for one complete revolution or move of the system. DO NOT USE END GUNS. The system should be run at maximum speed.

Solid Set and Manually Controlled Linear Systems

Injection should be during the last 30 to 60 minutes of a regular irrigation period or as a separate 30 to 60 minute application not associated with a regular irrigation. DO NOT USE END GUNS.



BOLSTAR 6 insecticide

RECOMMENDED APPLICATIONS

CROP	INSECT	Pints BOLSTAR 6	REMARKS
Cotton	Tobacco budworm Cotton bollworm Lygus (Nymphs)	2/3 to 2	Apply specified dosage per acre by air or ground equipment alone or in sufficient water or refined vegetable oil for complete coverage. For best results during mid-to-late season or under hot dry conditions use a higher gallonage per acre for better coverage. For example, by air use up to 5 gallons of water per acre. When using oil, one (1) quart of total volume is recommended. Pre-mix material. Oil mixture should be sprayed within 12 hours to avoid compatibility problems. Always run a small jar compatibility test before large scale mixing as each batch of vegetable oil tends to differ greatly in composition.
	Fall armyworm Beet armyworm Pink bollworm	1 to 2	For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.
	Fleahoppers	2/3	For <u>light infestations of larvae</u> apply 2/3 to 1 pint (1/2 to 3/4 lb. active) per acre, or for <u>moderate infestations</u> apply 1 to 1-1/3 pints (3/4 to 1 lb. active) per acre. Apply as needed with a 5 day interval.
	Suppression of: Lygus (adults) Whiteflies (except sweet potato whitefly) Spider mites (Carmine and two-spotted)	2/3 to 2	<u>Heavy infestations, or infestations of large larvae:</u> Apply 1 or 2 applications of the 2 pint (1-1/2 lb. active) rate per acre until infestations are brought under control, then reduce application rates to 2/3 to 1-1/3 pints per acre. Allow at least 5 days between applications.
	Thrips (Except Western flower thrips) Fleahoppers Plant bugs (For early to mid-season use in Southern cotton growing areas)	1/3	In California and Arizona the minimum use rate is 1-1/3 pints (1 lb. active) per acre, regardless of degree of infestation of tobacco budworm or cotton bollworm. NOTE: In areas of frequent rainfall the higher rates and closer spray intervals (5-day minimum interval required) may be needed for adequate control. In <u>any case</u> do not apply more than a total of 8 pints per acre with the last application no closer to harvest than 21 days in California and Arizona, or 14 days in all other states. Do not graze treated fields. Apply specified dosage per acre (by air or ground equipment) alone, in water, or in refined vegetable oil as stated above. Apply during early to mid-season when thrips, plant bug or fleahoppers reach economic threshold.

BOLSTAR 6 insecticide

RECOMMENDED APPLICATIONS (Continued)

CROP	INSECT	Pints BOLSTAR 6	REMARKS
Soybeans (except California)	Bean thrips Potato leafhopper Velvet bean caterpillar	1/3 to 1	Apply specified dosage per acre in sufficient diluent for complete coverage on a 10 to 14 day interval. Apply high rates for heaviest infestations.
	Plant bugs Lygus spp. Green cloverworm Heliothis spp. (podworm, bollworm, corn earworm)	2/3 to 1-1/3	For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.
	Beet armyworm Mexican bean beetle	1 to 1-1/3	NOTE: In areas of frequent rainfall the higher rates and closer spray intervals (10-day minimum interval required) may be needed for adequate control. Do not apply more than a total of 4 pints per acre within one season. The last application should be no closer to harvest than 60 days. Grazing or ensilage should be no earlier than 35 days from the last application.
	Three-cornered alfalfa hopper (suppression) Mexican bean beetle adults (suppression)		

NOTE: BOLSTAR 6 when used on cotton may be tank-mixed with GUTHION[®] 2L or GUTHION 2S when GUTHION is used for control of cotton insects at the recommended rates of GUTHION.

Do not apply GUTHION alone within 14 days of harvest of cotton after applying tank mixes of BOLSTAR plus GUTHION. In California and Arizona, GUTHION alone should not be applied within 21 days of harvest of cotton after applying this tank mix.

RE-ENTRY STATEMENTS

Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons. Do not enter treated areas without protective clothing until sprays have dried. Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

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. Oral warnings should include those statements found under the label heading "Precautionary Statements" and "Re-entry Statements" included on this label. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information: WARNING, area treated with BOLSTAR 6 on (date of application). Do not enter without appropriate protective clothing until sprays have dried. If on skin, remove contaminated clothing and wash skin immediately with soap and warm water. If eyes are contaminated, wash with flowing water for at least 15 minutes. If swallowed, vomiting should be induced. (See Precautionary Statements on label).

BOLSTAR 6 insecticide

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING

CAUSES EYE IRRITATION. MAY BE HARMFUL IF SWALLOWED, INHALED, OR ABSORBED THROUGH THE SKIN.

Do not get in eyes. Do not get on skin. Do not breathe spray mist. Always wash thoroughly with soap and warm water after handling. Wash contaminated clothing with soap and hot water before reuse. Do not contaminate feed or food. Keep out of reach of children.

Should poisoning occur, obtain prompt medical aid. Prolonged exposure will result in cholinesterase depression.

To Physician: The toxic mode of action is to depress cholinesterase. The victim should be treated symptomatically. Atropine sulfate when administered in conjunction with 2-PAM is antidotal.

STATEMENTS OF PRACTICAL TREATMENT

If in eyes, immediately flush eyes with plenty of water for at least 15 minutes. For further treatment get medical attention.

If swallowed, vomiting should be induced. Administer water freely and induce vomiting by giving one dose (1/2 ounce or 15 ml.) of syrup of ipecac. If vomiting does not occur within 10 to 20 minutes, administer second dose. If syrup of ipecac is not available, induce vomiting by sticking finger down throat. Repeat until vomit fluid is clear. Never give anything by mouth to an unconscious person. Professional medical assistance should be secured immediately.

If on skin, wash thoroughly with soap and warm water.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and wildlife. Use with care when applying in areas frequented by wildlife or adjacent to any body of water. When BOLSTAR 6 is applied by air at rates of 1 1/2 pints or greater per acre, applications should be made no closer than 100 feet of shorelines of fish bearing waters. Keep out of lakes, streams and ponds. Do not apply when weather conditions favor run-off or drift from target areas. Do not contaminate water by cleaning of equipment or disposal of wastes.

This product is toxic to bees exposed to direct treatment or residues on crops or weeds. Do not apply this product or allow it to drift to crops or weeds on which bees are foraging. Additional information may be obtained from your Cooperative Extension Services.

BOLSTAR 6 insecticide

ENVIRONMENTAL HAZARDS (Continued)

Do not use on other crops used for food or forage. Use only according to label directions. Application at rates above those shown may result in illegal crop residues. Do not treat food crops grown in the greenhouse.

Crops to be grown in rotation with cotton should not be planted within 60 days after last application of BOLSTAR 6.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

STORAGE AND DISPOSAL

Pesticide Disposal: Do not contaminate water, food or feed by storage or disposal. Pesticide wastes are toxic. 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: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Store in a cool, dry place, away from open flame and extreme heat, and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If container is leaking invert to prevent leakage. If the container is leaking or material spilled for any reason or cause, carefully dam up spilled material to prevent runoff. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed for pesticides above. In spill or leak incidents, keep unauthorized people away. You may contact the Mobay Emergency Response Team for decontamination procedures or any other assistance that may be necessary. The Mobay Kansas City Emergency Response Telephone No. is 816-242-2582, or contact Chemtrec at 800-424-9300.

BOLSTAR is a Reg. TM of Bayer AG, Germany.

