



(Front Cover)

Milocep®

Herbicide

For weed control in  
grain or forage sorghum

2 1/2 Gallons  
U.S. Standard Measure

**ACCEPTED**  
OCT 17 1983  
Approved by the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the registration  
numbered under  
EPA Reg. No. 100-604

**Active Ingredients:**

Metolachlor: 2-chloro-N-(2-ethyl-6-methylphenyl)-N-(2-methoxy-1-methylethyl)acetamide .....	36.3%
Propazine: 2-chloro-4,6-bis(isopropylamino)-s-triazine .....	18.7%
<b>Inert Ingredients:</b>	<b>45.0%</b>
<b>Total:</b>	<b>100.0%</b>

Milocep contains 5 lbs. active ingredients per gallon.

Keep Out of Reach of Children.

Danger

See additional precautionary statements inside booklet.

EPA Reg. No. 100-604  
EPA Est. 100-LA-1

Milocep® trademark of CIBA-GEIGY  
U.S. Patent No. 3,937,730 (metolachlor)

See directions for use inside booklet.

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Agricultural Division  
CIBA-GEIGY Corporation  
Greensboro, North Carolina 27419

CGA 62L1D

CIBA-GEIGY

DIRECTIONS FOR USE AND CONDITIONS OF SALE AND WARRANTY

IMPORTANT: Read the entire Directions for Use and the Conditions of Sale and Warranty before using this product.

Conditions of Sale and Warranty

The Directions for Use of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application all of which are beyond the control of CIBA-GEIGY or the Seller. All such risks shall be assumed by the Buyer.

CIBA-GEIGY warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use subject to the inherent risks referred to above. CIBA-GEIGY makes no other express or implied warranty of Fitness or Merchantability or any other express or implied warranty. In no case shall CIBA-GEIGY or the Seller be liable for consequential, special, or indirect damages resulting from the use or handling of this product. CIBA-GEIGY and the Seller offer this product, and the Buyer and user accept it, subject to the foregoing Conditions of Sale and Warranty, which may be varied only by agreement in writing signed by a duly authorized representative of CIBA-GEIGY.

Directions for Use

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

FAILURE TO FOLLOW ALL PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.

Milocep is a selective herbicide for preplant incorporated or preemergence control of most annual grasses and broadleaf weeds in sorghum provided the sorghum seed has been properly treated by the seed company with Concep®.

**Precautions:** 1) If sorghum seed is not properly pre-treated with Concep, Milocep will severely injure the crop. 2) Under high soil moisture conditions prior to sorghum emergence, temporary injury may occur following the use of Milocep. The crop will normally outgrow this effect. 3) Do not use under dry mulch tillage, or injury may occur. 4) To avoid concentration of herbicide in the seed furrow, do not make a broadcast application to sorghum planted in furrows deeper than two inches. The width of the band should not exceed the width of the bottom of the furrow.

Dry weather following preemergence application of Milocep may reduce effectiveness. Cultivate if weeds develop.

Mixing Instructions

Shake well before using. Fill the spray tank one-half to three-fourths full with water or fluid fertilizer, add the proper amount of Milocep, then add the rest of the water or fluid fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform suspension. Check the compatibility of Milocep in fluid fertilizers in a small container, as described below, before mixing in the spray tank.

Compatibility Test: Nitrogen solutions or complete fluid fertilizers may replace all or part of the water in the spray. Since liquid fertilizers can vary, even within the same analysis, check compatibility each time before use. Be especially careful when using complete suspension or fluid fertilizers as

serious compatibility problems are more apt to occur. Commercial application equipment may improve compatibility in some instances. The following test assumes a spray volume of 25 gals. per acre. For other spray volumes, make appropriate changes in the ingredients. Check compatibility using this procedure:

- 1) Add 1 pint of fertilizer to each of 2 one-quart jars with tight lids.
- 2) To one of the jars add 1/4 tsp. or 1.2 milliliters of a compatibility agent approved for this use (1/4 tsp. is equivalent to 2 pts. per 100 gals. spray). Shake or stir gently to mix. Examples of compatibility agents include Compex® and Unite®.
- 3) To both jars add the appropriate amount of herbicide(s). If more than one herbicide is used, add them separately with dry herbicides first, flowables next, and emulsifiable concentrates last. After each addition, shake or stir gently to thoroughly mix. The appropriate amount of herbicides for this test follows:  
  
Dry herbicides: For each pound per acre add 1.4 teaspoons to each jar.  
  
Liquid herbicides: For each pint per acre add 0.5 teaspoon or 2.5 milliliters to each jar.
- 4) After adding all ingredients, put lids on and tighten, and invert each jar ten times to mix. Let the mixtures stand 15 minutes and then look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the two jars. If either mixture separates, but can be remixed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (A) slurry the dry herbicide(s) in water before addition, or (B) add 1/2 of the compatibility agent to the fertilizer and the other 1/2 to the emulsifiable concentrate or flowable herbicide before addition to the mixture. If still incompatible, do not use the liquid fertilizer and herbicide(s) in the same spray tank.

Application Procedures

Ground Application: Use spray equipment that provides accurate and uniform application. Screens and strainers should be no finer than 50-mesh. Rinse sprayer thoroughly with clean water immediately after use.

For broadcast ground applications in water or in fluid fertilizer, apply Milocep in a minimum of 15 gals. of spray mixture per acre. For band treatment, use a proportional volume of water or fluid fertilizer.

Aerial Application: For aerial application, use a minimum of 2 gals. of water per acre. Avoid application under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. In order to assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 ft., using low drift nozzles at a maximum pressure of 40 psi, and restrict application to periods when wind speed does not exceed 10 mph. To assure that spray will not adversely affect adjacent sensitive nontarget plants, apply Milocep by aircraft at a minimum upwind distance of 400 ft. from sensitive plants.

Avoid application to humans or animals. Flagmen and loader should avoid inhalation of spray mist and prolonged contact with skin, and should wash thoroughly before eating and at the end of each day's operation.

Dry Bulk Granular Fertilizers

Many dry bulk granular fertilizers may be impregnated or coated with Milocep and incorporated into the soil to control weeds in Concep treated sorghum.

Labels, supplementary literature, and precautions regarding rates per acre, approved crops, soil texture, application, incorporation, crop rotation and other directions must be followed for Milocep.

All individual state regulations relating to dry bulk granular fertilizer blending, registration, labeling, and application are the responsibility of the individual and/or company selling the herbicide/fertilizer mixture.

Apply 200-450 pounds per acre of dry granular fertilizer impregnated with Milocep.

Do not impregnate Milocep on ammonium nitrate, potassium nitrate, or sodium nitrate either alone or in blends with other fertilizers.

Do not combine Milocep with single superphosphate (0-20-0) or treble superphosphate (0-46-0).

Do not use Milocep on straight limestone, since absorption will not be achieved. Fertilizer blends containing limestone can be impregnated.

Prepare the granular herbicide/fertilizer mixtures by using any closed drum, belt, ribbon, or other commonly used dry bulk fertilizer blender. Nozzles used to spray Milocep onto the fertilizer must be placed to provide uniform spray coverage.

If the herbicide/fertilizer mixture is too wet, use a highly absorptive powder, such as Microcel E (Johns-Manville Products Corporation), diatomaceous earth or finely powdered clay, to obtain a dry free-flowing mixture. Add the absorptive powder separately and uniformly to the herbicide/fertilizer mixture and blend to form a suitable free-flowing mixture. Generally, less than 2% by weight of absorptive powder will be needed.

Calculate amounts of Milocep by the following formula:

$$\frac{2,000}{\text{lbs. of fertilizer per acre}} \times \text{pts. of Milocep per acre} = \text{pts. of Milocep per ton of fertilizer}$$

For best results, apply this mixture uniformly to soil with properly calibrated equipment immediately after blending, and incorporate according to directions.

**Precaution:** Do not use on crops where bedding occurs following the herbicide/fertilizer application or injury may occur.

Within the rate range for a specific soil category in the rate table, use the lower rate on soil relatively coarse-textured or low in organic matter; use the higher rate on soil relatively fine-textured or high in organic matter.

Calculate the amount of Milocep needed for band treatment by the formula:

$$\frac{\text{band width in inches}}{\text{row width in inches}} \times \text{broadcast rate per acre} = \text{amount needed per acre of field}$$

Weeds Controlled

barnyardgrass  
(watergrass)  
browntop panicum  
crabgrass  
crowfootgrass  
fall panicum  
giant foxtail  
green foxtail  
prairie cupgrass  
red rice  
signalgrass  
(Brachiaria)  
southwestern cupgrass  
witchgrass  
yellow foxtail  
yellow nutsedge

Weeds Partially Controlled

sandbur  
seedling johnsongrass  
volunteer sorghum

Application: Apply Milocep either preplant incorporated or preemergence at the appropriate rate from the following rate table. Preplant Incorporated: Apply to the soil within 14 days prior to planting and incorporate into the top 2 inches, using a finishing disk, harrow, rolling cultivator, or similar implement capable of uniform incorporation. Use a preplant incorporated application if furrow irrigation is used or when a period of dry weather after application is expected. If sorghum is to be planted on beds, apply and incorporate after bed formation. Preemergence: Apply to the soil surface at planting, or after planting but before weeds or sorghum emerge.

Soil texture	Broadcast rate per acre
<b>COARSE:</b> Sand, loamy sand	DO NOT USE
sandy loam	3-3.5 pts.
<b>MEDIUM:</b> Loam, silt, silt loam	3.5-4.5 pts.
<b>FINE:</b> Silty clay loam, sandy clay loam, clay loam, sandy clay, silty clay, clay	4.5-5 pts.

**Precaution:** Application on highly alkaline soils or on eroded areas where calcareous subsoils are exposed may cause crop injury.

**Rotational Crops:** 1) If sorghum treated with Milocep is lost, sorghum may be replanted immediately using seed treated with Concep. Do not make a second broadcast application of Milocep. If the original application was banded and sorghum is replanted in the untreated row middles, a second band treatment of Milocep may be applied. 2) Corn, cotton or sorghum may be planted in the spring following treatment in all sorghum growing areas. Do not graze or feed forage or fodder from cotton to livestock. 3) In Arkansas, Louisiana, the Texas Gulf Coast, Texas Blacklands, and the southeastern U.S., soybeans may also be planted the spring following treatment. 4) Other crops should not be planted for 18 months following application.



Storage and Disposal

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container. Pesticide, spray mixture, or rinsate that cannot be used according to label instructions must be disposed of according to applicable federal, state, or local procedures. Triple rinse (or equivalent) and offer for recycling or reconditioning, or dispose of in a sanitary landfill or by incineration if permitted by state and local authorities.

Precautionary Statements

Hazards to Humans and Domestic Animals

**DANGER**

Corrosive - causes eye damage. Do not get in eyes, skin, or clothing. Wear goggles or face shield when handling. May be fatal if inhaled. Do not breathe vapors or spray mists. Harmful if swallowed. May cause skin sensitization reactions in certain individuals. Wash thoroughly after handling. Avoid contamination of food.

First Aid: In case of contact with eyes, immediately flush with plenty of water. Call a physician. If inhaled, move to fresh air. If the patient is not breathing, give artificial respiration and seek medical attention. In case of contact with skin, wash with soap and water. Remove and wash contaminated clothing before reuse.

If swallowed, contact your local poison control center, hospital, or physician. If the patient is unconscious, maintain breathing and heartbeat (cardiopulmonary resuscitation). If the patient is conscious and alert, induce vomiting (syrup of ipecac or stimulate the back of the throat with a finger). NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

Note to Physician: There is no specific antidote. If swallowed, induce emesis or lavage stomach. The use of an aqueous slurry of activated charcoal should be considered.

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Environmental Hazards

Do not apply directly to any body of water. Do not apply where runoff is likely to occur. Do not contaminate water by cleaning of equipment or disposal of wastes. Do not apply when weather conditions favor drift from areas treated.

Milocep® trademark of CIBA-GEIGY  
U.S. Patent No. 3,937,730 (metolachlor)

Concep® trademark of CIBA-GEIGY  
U.S. Patent No. 4,070,389

Compex® trademark of Kalo Agricultural Chemicals, Inc.

Unite® trademark of Hopkins Agricultural Chemical Company

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