

10182-120 PM25

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**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.

**ACCEPTED**  
JUN 11 1987  
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 10182-120

### SUREFIRE HERBICIDE

**KEEP OUT OF REACH OF CHILDREN**

**DANGER**  
 **POISON**

**DO NOT REMOVE CONTENTS EXCEPT FOR IMMEDIATE USE.  
NEVER PUT INTO FOOD, DRINK OR OTHER CONTAINERS.  
READ DANGER STATEMENTS AND WORKER SAFETY RULES ON  
BACK PANEL.**

**DO NOT USE OR STORE IN OR AROUND THE HOME.  
ONE SWALLOW CAN KILL!  
SYMPTOMS ARE PROLONGED AND PAINFUL ONSET OF  
SYMPTOMS MAY BE DELAYED FOR UP TO 3 DAYS AFTER  
SWALLOWING.**

**PELIGRO**  
**PRECAUCION AL USUARIO:**  
Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

Active Ingredient:	g, wt.
Paraquat dichloride (1,1'-dimethyl-4,4'-bipyridinium dichloride) .....	29.42 %
Diuron [3-(3,4-dichlorophenyl)-1,1-dimethylurea] .....	10.66
<b>INERT INGREDIENTS</b> .....	<u>59.92</u>
<b>TOTAL</b> .....	<u>100.00 %</u>

Call ICI Americas Medical Emergency Information  
Center 800/327-8633 (Dial 1-800-F-A-S-T-M-E-D).



**DANGER** Corrosive, causes eye and skin damage.  
Can Kill If Swallowed. May Be Harmful or Fatal If Absorbed  
Through Skin or Inhaled.

### STATEMENT OF PRACTICAL TREATMENT

**IF SWALLOWED:** IMMEDIATELY induce vomiting by inserting finger in throat. Administer fluids and induce further vomiting. Get to a hospital or physician fast. PROMPT TREATMENT IS ESSENTIAL and must be initiated before signs and symptoms of injury appear. Note to Physicians:

at any hour to obtain toxicology and medical management consultation, a supply of bentonite clay, and paraquat analysis. Symptoms following ingestion may be delayed up to 3 days. To be effective, treatment for paraquat poisoning must begin IMMEDIATELY. Treatment consists of binding paraquat in the gut with suspensions of bentonite clay or charcoal and removal of paraquat from the blood by prolonged charcoal hemoperfusion or continuous hemodialysis.

**SKIN CONTACT:** IMMEDIATELY wash with soap and water. Remove and wash all contaminated clothing with soap and hot water before reuse. Prolonged contact will cause severe irritation. Contact with irritated skin, or a cut, or repeated contact with intact skin may result in poisoning.

**EYE CONTACT:** IMMEDIATELY wash eyes with water for at least 15 minutes and get medical attention. Contact may cause eye injury.

**INHALATION:** IMMEDIATELY get away from spray mist. Exposure may cause irritation, nose bleeds and may lead to poisoning. Stop and check spray procedure. Follow Worker Safety Rules below.

### DIRECTIONS FOR USE

It is a violation of Federal law and may endanger the applicator or third parties to use this product without complying with all label directions and warnings.

**READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH DANGER STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.**

**NOTE:** Do Not Use Around Home Gardens, Schools, Recreational Parks, or Playgrounds.

Refer to Supplemental Pamphlet for Use Directions.

### WORKER SAFETY RULES/REENTRY STATEMENTS

DO NOT get on skin, eyes or clothing.

DO NOT inhale spray mist.

WASH SKIN AND EYES from skin and eyes immediately.

REMOVE and wash contaminated clothing.

WASH before eating, smoking and drinking.

WEAR full face shield, rubber gloves and apron and waterproof footwear when pouring concentrate or when exposure to concentrate is possible.

WEAR waterproof footwear and protective clothing when spraying outside of an enclosed cab or aircraft or when contacting vegetation wet with spray.

DO NOT enter treated areas without protective clothing until sprays have dried.

AVOID working in spray mist. If there is risk of exposure wear goggles and approved face mask capable of filtering spray droplets.

KEEP all unprotected persons out of operating areas or vicinity where there may be danger of drift. Certain states may require more restrictive reentry intervals, consult your State Department of Agriculture for further information.

Written or oral warnings regarding use of protective clothing and accidental exposure must be given to workers who are expected to be in treated areas or in areas about to be treated.

**IMPORTANT:** The effect of swallowing Paraquat is far more severe than that which usually results from skin contact or inhalation of spray mist. No opportunity for mist or product to cause serious injury or death should arise when used in strict compliance with these rules but the opportunity may arise in case of gross violations so strictly follow all these rules as if your life depends on it.

### ENVIRONMENTAL SAFETY CAUTIONS

**WILDLIFE:** This product is toxic to wildlife. Birds and other wildlife apply directly to water.

**DRIFT:** **SUREFIRE** is a contact herbicide that kills all plants under conditions involving possible drift to food, storage, or other plantings that are rendered unfit for sale, use, or consumption. Do not apply when weather conditions are unfavorable. For aerial applicators use, do not apply during periods of the day when wind speed is less than 3 mph.

**CHEMICAL HAZARD:** This product reacts with aluminum to form a highly combustible gas mixture. Such gas could flash or explode if ignited by open flame, spark, welder's torch, lighted cigarette, or other heat source. Containers, spray tanks, nurse tanks, or such systems made of aluminum should be diluted with water to spray concentrations, spray systems made of, or used but should not be used for extended (overnight) storage.

**EQUIPMENT/CONTAINERS:** Flush all spray equipment with water. This product is corrosive to aluminum. Aluminum spray equipment that are exposed to spray solution or spray drift should be flushed after use.

### STORAGE AND DISPOSAL

**PROHIBITIONS:** Do not contaminate water, food or feed with spray or drift. Open dumping is prohibited.

**STORAGE:** Store at temperatures above 32°F. Do not contaminate water, food, or feed by storage, spill, leak, fire or exposure involving this material, call CHEMTREC.

**PESTICIDE DISPOSAL:** This product is acutely hazardous. Pesticide, spray mixture, or residue is a violation of Federal law. If these conditions exist, contact your State Pesticide or Environmental Hazardous Waste representative at the nearest EPA Regional Office.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Do not puncture and dispose of in a sanitary landfill, or dispose of by other means as directed by local authorities.

**CONDITIONS OF SALE:** 1. ICI Americas Inc. (ICIA) warrants that this material on the label and is reasonably fit for use as directed hereon. ICIA neither represents nor warrants, in any other warranty of FITNESS or of MERCHANTABILITY, express or implied, concerning this material. 2. Critical and unforeseeable factors beyond ICIA's control prevent it from the use of chemicals. Such risks include, but are not limited to, damage to property, lack of complete control, and damage caused by drift to other plants. The product is reasonably fit for the uses stated hereon and even though user acknowledge and assume all risks and liability (except those assumed by ICIA) in handling, storage and use of this material.



ICI Americas Inc.  
Agricultural Chemicals Division  
Wilmington, Delaware 19897

**BEST AVAILABLE COPY**

SUREFIRE HERBICIDE

## **Supplemental Pamphlet**

**DIRECTIONS FOR USE  
READ WORKER SAFETY RULES**

**DANGER**



**POISON**

**ONE SWALLOW CAN KILL.**

**SYMPTOMS ARE PROLONGED AND PAINFUL.  
ONSET OF SYMPTOMS MAY BE DELAYED  
FOR UP TO 3 DAYS AFTER SWALLOWING.**  
*Corrosive, causes eye and skin damage.  
May Be Harmful or Fatal*  
**If Absorbed Through Skin or Inhaled.**

**PELIGRO — PRECAUCION AL USUARIO:**

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

**STATEMENT OF PRACTICAL TREATMENT**

**IF SWALLOWED**

**IMMEDIATELY** induce vomiting by inserting finger in throat. Administer fluids and induce further vomiting. Get to a hospital or physician fast. **PROMPT TREATMENT IS ESSENTIAL** and must be initiated before signs and symptoms of injury appear. **Note to Physicians: Call ICI Americas Medical Emergency Information Center 800/327-8633 (Dial 1-800-F-A-S-T-M-E-D), at any hour** to obtain toxicology and medical management consultation, a supply of bentonite clay, and paraquat analysis. Symptoms following ingestion may be delayed up to 3 days. To be effective, treatment for paraquat poisoning must begin **IMMEDIATELY**. Treatment consists of binding paraquat in the gut with suspensions of bentonite clay or charcoal and removal of paraquat from the blood by prolonged charcoal hemoperfusion or continuous hemodialysis.

**SKIN CONTACT**

**IMMEDIATELY** wash with soap and water. Remove and wash all contaminated clothing with soap and hot water before reuse. Prolonged contact will cause severe irritation. Contact with irritated skin, or a cut, or repeated contact with intact skin may result in poisoning.

**EYE CONTACT**

**IMMEDIATELY** wash eyes with water for at least 15 minutes. Get medical attention. Contact may cause eye injury.

**INHALATION**

**IMMEDIATELY** get away from spray mist. Exposure causes eye irritation, nose bleeds and may lead to poisoning. Follow spray procedure. Follow Worker Safety Rules.

**WASH AND DESTROY CONTAINER WHEN EMPTY. NEVER REUSE.**

**TO PREVENT ACCIDENTS  
NEVER PUT INTO FOOD, DRINK  
OR OTHER CONTAINERS**

**DO NOT USE OR STORE IN OR AROUND**

**DO NOT POUR FROM ORIGINAL CONTAINER  
EXCEPT FOR IMMEDIATE USE**

**KEEP OUT OF REACH OF CHILDREN**

**Active Ingredients:**

Paraquat dichloride (1,1'-dimethyl-4,4'-bipyridinium dichloride) .....	
Diuron [3-(3,4-dichlorophenyl)-1,1-dimethylurea] .....	
<b>INERT INGREDIENTS</b> .....	
<b>TOTAL</b> .....	

INDEX

	<u>Page</u>
Preplant or Preemergence Uses . . . . .	4
Dormant Uses . . . . .	5
Directed Sprays. . . . .	5
Wheat - Chemical Fallow. . . . .	9
Noncrop Uses . . . . .	10
Worker Safety Rules/Reentry Statements . . . . .	11
Environmental Safety Cautions. . . . .	11
Storage and Disposal . . . . .	12

## SUREFIRE Herbicide

### DIRECTIONS FOR USE

It is a violation of Federal law and may endanger the applicator or third parties to use this product without complying with all label directions and warnings.

READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH DANGER STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

READ DANGER AND FIRST-AID TREATMENT ON INSIDE FRONT COVER AND WORKER SAFETY RULES.

NOTE: Do Not Use Around Home Gardens, Schools, Recreational Parks, or Playgrounds.

Always use a nonionic spreader surfactant approved for use with food crops and which contain at least 75% surface active ingredients.

Do not use dirty or muddy water for SUREFIRE dilution because SUREFIRE will be inactivated.

Do not combine SUREFIRE herbicide with liquid fertilizer solutions except as specified below.

SUREFIRE herbicide and SUREFIRE tank mixes may be applied in liquid nitrogen and/or complete liquid fertilizer solutions (follow label recommendations for crop involved) when 20 to 60 gals. of dilute solution are applied per acre in combination with 1 to 2 pts. of Spreader (nonionic) per 100 gals. Equipment must be adjusted and calibrated to obtain thorough coverage of undesirable vegetation. Inadequate coverage and/or the absence of Spreader (nonionic) will result in a severe reduction of SUREFIRE activity. Phosphate containing liquid fertilizer solutions will reduce the activity of SUREFIRE. When liquid fertilizer solutions containing phosphorus are used with SUREFIRE and a more rapid kill is desired, use the high SUREFIRE label rate.

DO NOT combine with suspension-type liquid fertilizers because the activity of SUREFIRE will be reduced.

### PREPLANT OR PREEMERGENCE USES

PREPLANT OR PREEMERGENCE USE - For Kill or Emerged Annual Broadleaf Weeds and Grasses and for Top Kill and Suppression of Perennials - Apply when the weeds and grasses are succulent and growth is from 1" to 6" high (larger plants are less affected by this treatment). Note: To prevent injury to germinating crop seedlings, do not apply preplant or preemergence to soils lacking clay minerals, i.e., peat, muck, pure sand, artificial planting media.

Preplant or Preemergence use in : CORN, COTTON, WHEAT - Apply 1 to 2 qts. of SUREFIRE per sprayed acre as a band treatment over the crop row, or as a broadcast treatment, prior to, during, or after planting but before emergence of the crop. Aerial Application - 5 to 10 gals. of water per acre. Ground Application - Use 20 to 60 gals. diluted spray. Add Spreader (nonionic) at 16 to 32 fl. oz. per 100 gals. of diluted spray. Seedbeds should be formed as far ahead of planting and treatment as possible to permit maximum weed and grass emergence. Seeding should be done with a minimum amount of soil disturbance. Weeds and grasses emerging after application will not be controlled. Crop plants emerged at time of application will be killed.

70611

FOR KILL OF EMERGED VOLUNTEER BARLEY (California Only) - Preplant in Cotton - Apply 1/2 to 1 pt. SUREFIRE paraquat per acre broadcast as a preplant treatment to preformed seedbeds. Aerial Application - Use 5 to 10 gals. water per acre. Add Spreader (nonionic) at 16 to 32 fl. oz. per 100 gals. diluted spray.

#### DORMANT USE

PEPPERMINT, For Suppression of Weeds Such as Italian Ryegrass, Prickly Lettuce, Groundsel, Chickweed, Downy Brome and Bluegrasses During the Dormant Season - Apply 1 1/2 to 3 pts. SUREFIRE per acre as a broadcast spray in 25 to 65 gals. spray mix. Use the higher rate with heavier weed infestations. Add Spreader (nonionic) at 16 fl. oz. per 100 gals. spray mix. Apply when peppermint or spearmint is dormant and before spring growth begins. Do not apply to weeds which are greater than 6" tall. Do not apply more than 3 pts. per acre per dormant season as injury or excessive residues may result. For Improved Contact Activity and Residual Control of Italian Ryegrass, Prickly Lettuce and Groundsel - Add 1 to 2 lbs. of SINBAR® (Terbacil) Weed Killer as a tank mix. Use the higher tank mix rate with heavier weed infestations. Apply tank mix treatment no more than once per season. Use a minimum of 25 gals. spray mix per acre. Refer to the SINBAR label for specific recommendations and cautions.

#### DIRECTED SPRAYS

ORCHARDS, VINEYARDS, WINDBREAK, SHADE AND ORNAMENTAL TREES: For Kill of Annual Broadleaf Weeds and Grasses and For Top Kill and Suppression of Perennials in the Interspaces and Around the Base of Trees and Vines: Apples, Bananas, Citrus, Grapes, Macadamia Nuts, Olives, Papayas, Peaches, Pears, Pecans, Walnuts and other Trees such as Arborvitae, Ash, Elm, Fir, Oak and Pine - Apply as a directed spray at 1 to 2 qts. SUREFIRE per sprayed acre in 30 to 150 gals. water (use 30 to 50 gals. water for pecans) to thoroughly cover the weeds and grasses. Add Spreader (nonionic) at 16 to 32 fl. oz. per 100 gals. Apply when the weeds and grasses are succulent and the new growth is from 1 to 6 inches high. For mature woody weeds, green suckers, late-germinating weeds and grasses and for perennials - retreatment or spot treatment may be necessary. CAUTION: Do not allow spray to contact green stems, fruit or foliage because injury may result. Do not spray under windy conditions and use a shield for young trees or vines. Do not allow animals to graze on treated areas. Do not apply when nuts to be harvested are on the ground. For Pistachios, do not harvest within 7 days of treatment and do not exceed two applications after shells split.

GRAPES, AND WALNUTS (California Only); ORANGES (California and Florida Only); APPLES, PEACHES, PEARS: Tank Mix with PRINCEP 80W Simazine Weed Killer - For Top Kill and Residual Control of Annual Broadleaf Weeds and Grasses and for Suppression of Perennial Weeds - For Broadcast application apply 1 to 2 qts. SUREFIRE per acre and PRINCEP 80W at the following rates per acre:

706/15

Crop	Rate PRINCEP 80W Per Sprayed Acre	Precautions
Almonds and Peaches (California Only)	1½-2½ lbs. in 2-4 ft. band on each side of tree row. 1½ lbs. provides residual control of burclover, common chickweed, wild mustard and sheperdspurse.	Do not treat trees established less than 3 years. Do not treat Mission variety of almonds. Do not apply to al- mond trees propa- gated on plum root stalks. Do not re- plant almonds or peaches in treated soil. Do not apply on gravelly sand or loamy sand soil or on soil with less than 1% organic matter. Do not treat areas where water will accum- ulate.
Apples Pears	2½-5 lbs.	Do not apply to sandy soil. Level- ing and furrowing operations after application will lessen effectiveness of weed control.
Walnuts (California Only)		
Peaches (Arkansas, Louisiana, Missouri, Oklahoma, Texas and states East of the Mississippi River)	2-5 lbs.	Do not apply to sandy or gravelly soil.
Grapes (California Only)	2½-6 lbs.	Do not use in vine- yards established less than 3 years.
Oranges (California Only) Except Imperial, Coachella and Palo Verde Valleys (Florida Only) - Bedded	2½-5 lbs.    4 lbs.	Do not use in nurseries. To avoid possible injury, do not apply to trees under stress from freeze damage for one year following the freeze.



Use the low rate of PRINCEP 80W on coarse-textured soils and low organic matter soils. Use the high rate on fine-textured soils and high organic matter soils. Apply as a tank mix in 50 to 200 gals. of water per acre to the orchard floor, avoiding contact with fruit, foliage or stems. Add Spreader (nonionic) at 16 to 32 fl. oz. per 100 gals diluted spray. Apply when weeds and grasses are succulent and the new growth is from 1 to 6 inches tall. For band applications or spot applications around trees, reduce the broadcast rate and the amount of water in proportion to the area actually sprayed.

Make only one application per year. Apply in orchards where trees have been established one year or more. Do not spray under windy conditions and use a shield for young trees. Do not apply to almonds and walnuts when nuts are on the ground during the harvest period. Do not allow animals to graze treated areas.

Refer to the PRINCEP 80W Simazine label for general information, caution and warning statements.

**PINEAPPLES:** For Kill of Annual Broadleaf Weeds and Grasses and Top Kill and Suppression of Perennials - Apply as a directed spray using 1 to 2 qts. SUREFIRE in 100 to 200 gals. water per sprayed acre to thoroughly cover the weeds and grasses. Add Spreader (nonionic) at 16 to 32 fl. oz. per 100 gals. Apply when weeds and grasses are succulent and new growth is from 1 to 6 inches high. Retreatment may be necessary on more mature weeds. Do not apply within 20 days of harvest.

**SMALL FRUITS (Blackberries, Boysenberries, Raspberries, Blueberries):** For Kill of Annual Broadleaf Weeds and Grasses and for Top Kill and Suppression of Perennial Weeds in the Interspaces and Around the Base of Bushes - Apply as a coarse directed spray at 1 to 2 qts. SUREFIRE per sprayed acre in 50 to 200 gals. water to thoroughly wet the weeds and grasses. Add Spreader (nonionic) at 16 to 32 fl. oz. per 100 gals. water. Apply before emergence of new canes or shoots since injury to those canes or shoots can result. Apply as a coarse spray to avoid drift injury from fine-spray mist.

**GRAIN SORGHUM:** Postemergence Directed Spray - For Kill of Emerged Crabgrass and Pigweed 3 Inches or Less in Height - 1 to 2 pts. SUREFIRE in 20 to 40 gals. water per sprayed acre. Use higher gallonage of water for larger weeds. For band applications, 1 pt. SUREFIRE will cover 2 land or crop acres when a 20-inch band is treated in 40-inch rows. Treat when grain sorghum is naturally standing 12 inches tall or more. Add Spreader (nonionic) at 1 qt. per 100 gals. of spray. Do not exceed 30 psi; high pressure contributes to spray drift.

For best results, apply SUREFIRE at 1 pt. per sprayed acre to grass and weeds less than 2 inches tall. Grass and weeds 2 to 3 inches tall should be sprayed with 2 pts. of SUREFIRE per sprayed acre. Use precision application equipment with spray nozzles mounted on skid shoes, oiling shoes, fenders, or cultivators with gauge wheels and adjusted so that only the lower 3 inches or less of the sorghum stalk is sprayed.

1007

For best coverage on single rows, use 4 flat-fan nozzles per row, 2 nozzles on each side of the row. The 2 forward nozzles should point forward and downward, and rear nozzles should point to the rear and downward. For double-row sorghum use one skid between the two rows with one nozzle spraying backward and downward.

Some sheath and lower-leaf spotting and desiccation will occur. Basal spotting does not penetrate beneath outer sheath. Degree of injury is related to precision of application and wind velocity. Do not spray under windy conditions.

**FIELD CORN:** Postemergence Directed Spray Using SUREFIRE Alone or SUREFIRE + Atrazine Tank Mix - For Control of Emerged Annual Broadleaf Weeds and Annual Grasses Less than 4 Inches Tall. Apply 1 pt. GRAMOXONE paraquat per acre in 20 to 40 gals. of spray mix. Apply when corn plants are at least 10 inches tall. Corn plants shorter than 10 inches may be injured and not recover. Corn height measured from soil surface to top of whorl. Apply with directed-spray application equipment. Arrange nozzles to spray no higher than the lower 3 inches of corn stalks to provide for maximum contact of weeds, with minimum contact of corn plants to prevent excessive sheath and lower-leaf spotting and desiccation. Add 1 qt. of Spreader (nonionic) per 100 gals. of spray. Do not mix with liquid fertilizer. For Improved Control of Weeds, Especially Broadleaf Weeds, Tank Mix SUREFIRE and AATREX: Add 5/8 to 1 1/4 lbs. of AATREX 80W or 1 to 2 pts. of AATREX 4L in combination with 1 pt. SUREFIRE per acre. Add AATREX 80W or AATREX 4L to spray tank first, mixing thoroughly in water. Then add SUREFIRE and surfactant. Constant agitation recommended at all times. Refer to AATREX labels for limitation and cautions.

Do not graze treated areas or feed treated forage to livestock.

**CORN:** For use in the USDA Witchweed eradication program to kill grassy weeds. Apply 1 qt. SUREFIRE in 10 to 20 gals. spray per acre. Add Spreader (nonionic) at 16 fl. oz. per 100 gals. spray mix. Apply as a spray directed onto the grassy weeds at the base of the corn stalks in the hills or row. Initiate sprays in early July and repeat in early August if regrowth of grassy weeds occurs. Do not graze livestock in treated area.

**SUGARCANE - Directed Spray:** For Kill of Emerged Annual Broadleaf Weeds and Grasses and for Top Kill of Perennials - Apply as a shielded or directed spray when weeds are 2 to 6 inches high. Avoid contact with cane foliage to prevent serious leaf burn and reduced yields. Make a second and final application, if necessary, when new weed growth is 2 to 6 inches high. Add Spreader (nonionic) at 16 fl. oz. per 100 gals. spray mix.

**FLORIDA ONLY -** Apply 1 qt. in 50 to 100 gals. of water per acre. For optimum results, apply early in the season (March-April) when weeds are small. Do not apply after June 1st because cane growth may be stunted and yields reduced.

**HAWAII ONLY -** Apply 1 qt. SUREFIRE in 20 to 200 gals. of water per acre. Do not apply after cane rows have closed in.

**LOUISIANA ONLY -** Apply 1/2 to 1 qt. SUREFIRE in 20 to 200 gals. of water per acre. For tiller control, apply when tillers are less than 18" high. Use the higher rate of SUREFIRE with heavier weed infestations or tiller growth. Do not apply within 30 days of harvest.

FALLOW LAND APPLICATION IN VARIOUS SMALL GRAIN/MILO/CORN  
FALLOW ROTATION SYSTEMS

For control of most emerged annual broadleaf weeds and grasses during the fallow period(s). Apply SUREFIRE as a broadcast spray to weeds 1 to 6 inches tall. Weeds taller than 6 inches may not be controlled. As density of stubble, crop residues, or weeds increases, spray gallonage should be increased within the recommended range for complete coverage. Weeds and grasses emerging after applications, and regrowth from perennial weeds will not be controlled.

Rate/Acre of SUREFIRE	Nonionic Surfactant/100 gals Spray Mixture	Total Spray per Acre
1.5 pints	1-3 pints	Ground: 10-30 gals Air: 3-10 gals

**SURFACTANT:** Always use a nonionic surfactant (spreader) approved for agricultural use and which contains at least 75% surface-active ingredient. Non-use of a surfactant will result in incomplete spray coverage and reduced control of weeds. Use the higher rate of surfactant if weeds are difficult to wet or if tank-mixes with additional herbicides are used.

**SPRAY COVERAGE:** Apply using flat-fan nozzles using adequate total spray per acre to ensure complete coverage of weeds. Total weed coverage is essential for good control.

**SPRAY NOZZLES:** Flat-fan nozzles of size 3 to 8 and maximum 20-inch spacing are preferred for ground application of SUREFIRE. If spray volumes used will be in the 10- to 20-gallon-per-acre range, twin-orifice flat-fan nozzles (example: Twinjet 2-60-8004) will improve droplet size and spray distribution characteristics. If flood-type nozzles must be used, use a minimum of 20 gallons of finished spray per acre and select nozzle sizes to produce medium-fine droplets. Flood-type nozzle spacing should not exceed 40 inches. Flood-type nozzle size should not exceed size 10.

**SPRAY PRESSURES:** Operate spray equipment so that pressure at the nozzle is between 30 and 50 psi. Operating nozzles below or above this range will often result in inadequate or uneven spray coverage.

**BOOM HEIGHT:** Spray booms should be adjusted so that recommended spray pattern overlap is obtained at the top of the weed or cover crop canopy. Flat-fan nozzle spray patterns should overlap 30% on each edge, while flood-type nozzle spray patterns should overlap 50% on each edge (See figure 1).

**SPRAY CARRIER:** Use only clean water or nitrogen solutions as a carrier. Suspension-type fertilizers containing clay will reduce the activity of SUREFIRE herbicide and therefore should ~~not~~ be used.

**TANK MIXES:** The addition of BANVEL or 2,4-D may aid in the suppression of perennial broadleaf weeds and annual broadleaf weeds that have made excessive growth before application. Weeds and grasses emerging after application will not be controlled. Refer to the BANVEL or 2,4-D labels for directions, limitations and cautions.

For extended weed control during the fallow period, tank-mix with a registered residual herbicide (examples: GLEAN, KERB, AATREX, BLADDEX, etc.) or herbicide combinations. Refer to residual herbicide label(s) for directions, limitations, cautions, and for a list of weeds controlled by preemergence activity of the residual herbicide(s).

Add wettable powder herbicide(s) to spray tank first, mixing thoroughly in carrier. Then add liquid herbicide(s), SUREFIRE herbicide and nonionic surfactant (spreader). Constant agitation is recommended at all times.

#### NONCROP USES

NONCROP AREAS (Public Airports, Electric Transformer Stations and Substations, Pipeline Pumping Stations, Around Commercial Buildings, Storage Yards and Other Installations, Fence Lines, and Similar Noncrop Areas) - For the Control of Annual Broadleaf weeds and Grasses (such as Burclover, Chickweed, Filaree, Groundsel, Nettle, Pigweed, Plantain, Puncturevine, Purslane, Red Clover, Shepherdspurse, Thistle, Wild Mustard, Wild Radish, Wild Oats, Bluegrass, Cheatgrass, Crabgrass) and Top Kill and Suppression of Perennial Weeds (such as Bermudagrass, Johnsongrass, and Morningglory) - 1 qt SUREFIRE per acre. Apply for full coverage and thorough weed contact (50 to 100 gals. diluted spray per acre). Best results are obtained when applications are made to young, succulent weeds and grasses. Mature, woody weeds are less susceptible. Repeat as needed. Add Spreader (nonionic) at 16 oz. per 100 gals. SUREFIRE is compatible with many residual herbicides. Avoid spray contact with foliage or fruit of food crops and ornamentals.

10/15

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Throughout this supplemental label, a number of chemicals manufactured by companies other than ICI Americas Inc. are mentioned; they are indicated by an asterisk and include:

AATREX® Reg. TM of CIBA-GEIGY Corp.  
BANVEL® Reg. TM of Sandoz Crop Protection Corp.  
IGRAN® Reg. TM of CIBA-GEIGY Corp.  
PRINCEP® Reg. TM of CIBA-GEIGY Corp.  
SINBAR® Reg. TM of E. I. duPont de Nemours & Co. Inc.

Please consult each appropriate label for specific use recommendations.

## WORKER SAFETY RULES/ REENTRY STATEMENTS

USE STRICTLY IN ACCORDANCE WITH DANGER STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

DO NOT get on skin, eyes or clothing.

DO NOT inhale spray mist.

WASH SPLASHES from skin and eyes immediately.

REMOVE and wash contaminated clothing.

WASH before eating, smoking and drinking.

WEAR full face shield, rubber gloves and apron and waterproof footwear when pouring concentrate or when exposure to concentrate is possible.

WEAR waterproof footwear and protective clothing when spraying outside of an enclosed cab or aircraft or when contacting vegetation wet with spray.

DO NOT enter treated areas without protective clothing until sprays have dried.

AVOID working in spray mist. If there is risk of exposure, wear goggles and approved face mask capable of filtering spray droplets.

KEEP all unprotected persons out of operating areas or vicinity where there may be danger of drift.

Certain states may require more restrictive reentry intervals; consult your State Department of Agriculture for further information. Written or oral warnings regarding use of protective clothing and accidental exposure must be given to workers who are expected to be in treated areas or in areas about to be treated.

**IMPORTANT:** The effect of swallowing paraquat is far more severe than that which usually results from skin contact or inhalation of spray mist. No opportunity for mist or product to cause serious injury or death should arise when used in strict compliance with these rules but the opportunity may arise in case of gross violations so strictly follow all these rules as if your life depends on it.

## ENVIRONMENTAL SAFETY CAUTIONS

### WILDLIFE

This product is toxic to wildlife. Birds and other wildlife in areas may be killed. Do not apply directly to water.

### DRIFT

**SUREFIRE** Herbicide is a contact herbicide that kills green plant tissue. Do not apply under conditions involving possible drift to food, forage, or other plantings that might be damaged or the crops thereof rendered unfit for sale, use, or consumption. Do not apply when weather conditions favor drift from treated areas. For aerial applicators use, do not apply during periods of temperature inversion to avoid drift.

### CHEMICAL HAZARD

This product reacts with aluminum to produce hydrogen gas which may form a highly combustible gas mixture. Such gas can burn or explode, causing serious personal injury, if ignited by flame, spark, welder's torch, lighted cigarette, or other heat source. Do not mix or store in containers, spray tanks, tanks, or such systems made of aluminum or having aluminum fittings. After dilution with water to spray concentrations, aluminum systems made of, or containing aluminum parts, may be used but should not be used for extended (overnight) storage.

### EQUIPMENT/CONTAINERS

Flush all spray equipment with water after use each day. **This product** is corrosive to aluminum. Aluminum spray equipment and aluminum aircraft structures exposed to spray solution or spray drift should be flushed thoroughly with water immediately after use.

## **STORAGE AND DISPOSAL**

### **PROHIBITIONS**

Do not contaminate water, food or feed by storage, disposal or cleaning of equipment. Open dumping is prohibited.

### **STORAGE**

Store at temperatures above 32°F. Do not contaminate feed, foodstuffs or drinking water. Do not store next to feed or food, or transport in or on vehicles containing foodstuffs or feeds. For help with any spill, leak, fire or exposure involving this material, call CHEMTREC 800/424-9300.

### **PESTICIDE DISPOSAL**

This product is 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**

See Container Label For Container Disposal Directions.

**CONDITIONS OF SALE:** 1. ICI Americas Inc. (ICIA) warrants that this material conforms to the chemical description on the label and is reasonably fit for use as directed hereon. ICIA neither makes, nor authorizes any agent or representative to make, any other warranty of FITNESS or MERCHANTABILITY, guarantee or representation, express or implied, concerning this material.

2. Critical and unforeseeable factors beyond ICIA's control prevent it from eliminating all risks in connection with the use of chemicals. Such risks include, but are not limited to, damage to plants and crops to which the material is applied, lack of complete control, and damage caused by drift to other plants or crops. Such risks occur even though the product is reasonably fit for the uses stated hereon and even though label directions are followed. Buyer and user acknowledge and assume all risks and liability (except those assumed by ICIA under 1 above) resulting from handling, storage and use of this material.