

1 of 24

PM 25
476-2213

(Stauffer Shield)

Booklet Text

SUTAZINE®+
Selective Herbicide

ACTIVE INGREDIENTS:

S-Ethyl diisobutylthiocarbamate	56.80%
Atrazine: 2-chloro-4-(ethylamino)-6-(isopropylamino)- s-triazine	13.90%
Related Triazines	0.30%
<u>INERT INGREDIENTS:</u>	29.00%
	<u>100.00%</u>

6-ME (Contains 6.0 pounds active ingredients per gallon.)

PREPLANT INCORPORATED HERBICIDE FOR ANNUAL GRASS AND BROADLEAF WEED CONTROL IN CORN (Field, Sweet, Silage and Popcorn)

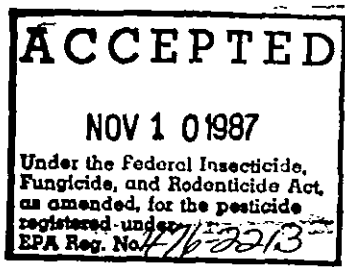
KEEP OUT OF REACH OF CHILDREN

D A N G E R

CORROSIVE, CAUSES IRREVERSIBLE EYE DAMAGE

HARMFUL IF SWALLOWED

STATEMENT OF PRACTICAL TREATMENT



FIRST AID

If a known exposure occurs or is suspected, immediately start the procedures given below. If further treatment is required, CONTACT A POISON CENTER, A PHYSICIAN, OR THE NEAREST HOSPITAL.

IF SWALLOWED

Immediately give several glasses of water and induce vomiting by gagging the victim with a finger placed on the back of the victim's tongue. Give fluids until vomitus is clear. If victim is unconscious or convulsing, do not induce vomiting or give anything by mouth.

EYE CONTACT

Immediately flush the eyes with plenty of running water for at least 15 minutes. Hold the eyelids apart during the flushing to ensure rinsing of the entire surface of the eye and lids with water. Call a physician.

SKIN CONTACT

Flush affected areas with plenty of water for several minutes. Remove and clean any contaminated clothing and shoes. Seek medical attention if skin irritation occurs.



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SUTAZINE+

2.

INHALATION

If inhaled, remove to fresh air. Seek medical attention if respiratory irritation occurs or breathing becomes difficult.

FOR ADDITIONAL MEDICAL INFORMATION, CALL COLLECT, STAUFFER EMERGENCY MEDICAL ASSISTANCE, (203) 226-6602 OR CHEMTREC, (800) 424-9300.

For other product information, contact your local Stauffer Chemical Company Distributor or see Product Safety Information Sheet.

READ ALL LABEL DIRECTIONS BEFORE USING

This product is sold only for uses stated on its label. No express or implied license is granted to use or sell this product under any patent in any country except as specified: Country: United States of America Patent Nos. 4,021,224; 4,137,070.

EPA Reg. No. 476-2213 2.5 Gal. Net 9.45 L
EPA Est. No. 476-NB-1

RS-870818

Made in U.S.A. by
STAUFFER CHEMICAL COMPANY
Westport, CT. 06881-0850

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PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

D A N G E R

CORROSIVE, CAUSES IRREVERSIBLE EYE DAMAGE. HARMFUL IF SWALLOWED. Avoid contact with skin, eyes and clothing. Avoid breathing spray mist. Wear goggles, rubber gloves and protective clothing when handling. Wash skin with soap and water immediately after contact. Flush eyes with water.

Do not apply this product in such a manner as to directly or through drift expose workers or other persons. When applied through sprinkler irrigation method of application, the area being treated must be vacated by unprotected persons.

ENVIRONMENTAL HAZARDS: Atrazine leaches readily and accepted label rates have been found to result in contamination of water supplies by way of groundwater. Therefore, users are advised to avoid use of atrazine in well-drained soils, particularly in areas having high groundwater tables.

This pesticide is toxic to aquatic invertebrates. Do not apply directly to water or wetlands. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water by cleaning of equipment or disposal of wastes.

ENDANGERED SPECIES RESTRICTIONS

The following restrictions apply to use of this product after February 1, 1988.

Before using this pesticide on corn in the counties listed below, you must obtain the PESTICIDE USE BULLETIN FOR PROTECTION OF ENDANGERED SPECIES for the county in which the product is to be used. The bulletin is available from your County Extension Agent, State Fish and Game Office, or your pesticide dealer. Use of this product in a manner inconsistent with the PESTICIDE USE BULLETIN FOR PROTECTION OF ENDANGERED SPECIES is a violation of Federal laws.

ALABAMA

COLBERT, GREENE, JACKSON, LAMAR, LAUDERDALE, LIMESTONE, MADISON, MARSHALL, MORGAN, PICKENS AND SUMTER

ARIZONA

GRAHAM, MARICOPA, MOHAVE, PIMA, PINAL AND SANTA CRUZ

ARKANSAS

BENTON, CLAY, CLARK, CROSS, LAWRENCE, LEE, POINSETTE, POLK, RANDOLPH, SHARP AND ST. FRANCIS

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CALIFORNIA

BUTTE, COLUSA, GLENN, IMPERIAL, MERCED, MODOC, RIVERSIDE,
SACRAMENTO, SOLANO, SUTTER, TEHEMA AND YOLO

FLORIDA

BROWARD, DADE, GLADES, AND PALM BEACH

KENTUCKY

BALLARD, BUTLER, EDMUNDSON, GREEN, HART, JACKSON, LAUREL,
LIVINGSTON, MARSHALL, McCracken, McCreary, PULASKI, ROCKCASTLE,
TAYLOR, WARREN AND WAYNE

MISSISSIPPI

CLAIBORNE, COPIAH, HINDS, ITAWAMBA, LOWNDES, MONROW AND NOXUBEE

MISSOURI

BARRY, BENTON, CAMDEN, CHRISTIAN, DALLAS, GREENE, HICKORY,
JASPER, LAWRENCE, MILLER, NEWTON, OSAGE, POLK, ST. CLAIR,
STONE AND WEBSTER

NEVADA

CLARK

NEW MEXICO

CHAVESS, DEBACA AND EDDY

NORTH CAROLINA

EDGECOMBE, NASH AND PITT

OHIO

PICKAWAY

OKLAHOMA

DELAWARE, MCCURTAIN AND PUSHMATAHA

OREGON

LAKE

TENNESSEE

BEDDFORD, BLOUNT, CLAIBORNE, DECATUR, FRANKLIN, HANCOCK,
HARDIN, HICKMAN, KNOX, LAWRENCE, LINCOLN, LOUDON, MARSHALL,
MAURY, MEIGS, MONROE, RHEA, ROANE, SCOTT, SEQUATCHIE, SMITH,
SULLIVAN AND WAYNE

TEXAS

RASTROP, BURLESON, COMAL, HARRIS, HAYS, JEFF DAVIS, PECOS AND
REEVES

UTAH

UTAH AND WASHINGTON

VIRGINIA

LEE, RUSSELL, SCOTT, SMYTH, TAZEWELL, WASHINGTON AND WISE

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WEEDS CONTROLLED BY SUTAZINE+

Barnyardgrass, Watergrass	(<u>Echinochloa crus-galli</u>)
Broadleaf Signalgrass††	(<u>Brachiaria platyphylla</u>)
Crabgrass	(<u>Digitaria spp.</u>)
Fall Panicum	(<u>Panicum dichotomiflorum</u>)
Field Sandbur*	(<u>Cenchrus pauciflorus</u>)
Giant Foxtail	(<u>Setaria faberi</u>)
Green Foxtail	(<u>Setaria viridis</u>)
Goosegrass	(<u>Eleusine indica</u>)
Seedling Bermudagrass	(<u>Cynodon dactylon</u>)
Seedling Johnsongrass*	(<u>Sorghum halepense</u>)
Texas Panicum††, Buffalograss, Coloradograss	(<u>Panicum texanum</u>)
Volunteer Sorghum*	(<u>Sorghum spp.</u>)
Wild Cane*†, Shattercane, Black Amber Cane, Chicken Corn, Scatter Cane	(<u>Sorghum bicolor</u>)- See Wild Cane Rate and Cultural Recommendations
Wild Oats	(<u>Avena fatua</u>)
Witchgrass	(<u>Panicum capillare</u>)
Yellow Foxtail	(<u>Setaria glauca</u>)

†Partial control (suppression) only.

*Cultivation is suggested in addition to the SUTAZINE+ treatment in fields with moderate to heavy infestations of wild cane, sandbur, johnsongrass, Texas panicum, volunteer sorghum, or broadleaf signalgrass.

+ Southeast Region only.

ANNUAL BROADLEAF WEEDS:

Annual Morningglory	(<u>Ipomoea purpurea</u>)
Carpetweed	(<u>Mollugo verticillata</u>)
Common Cocklebur	(<u>Xanthium pensylvanicum</u>)
Common Lambsquarters	(<u>Chenopodium album</u>)
Common Purslane	(<u>Portulaca oleracea</u>)
Florida Purslane	(<u>Richardia scabra</u>)
Jimsonweed	(<u>Datura stramonium</u>)
Mustards	(<u>Brassica spp.</u>)
Nightshade	(<u>Solanum spp.</u>)
Prostrate Pigweed	(<u>Amaranthus graecizans</u>)
Ragweed	(<u>Ambrosia spp.</u>)
Redroot Pigweed	(<u>Amaranthus retroflexus</u>)
Sicklepod+, Coffeeweed	(<u>Cassia obtusifolia</u>)
Smartweed	(<u>Polygonum spp.</u>)
Smooth Pigweed	(<u>Amaranthus hybridus</u>)
Velvetleaf	(<u>Abutilon theophrasti</u>)

+Southeast Region Only

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PERENNIAL WEEDS:

Hemp Dogbanet	(<u>Apocynum</u> <u>cannabinum</u>)
Purple Nutgrass, Nutsedge	(<u>Cyperus</u> <u>rotundus</u>)
Rhizome Bermudagrass+	(<u>Cynodon</u> <u>dactylon</u>)
Rhizome Johnsongrasst	(<u>Sorghum</u> <u>halapense</u>)
Yellow Nutgrass, Nutsedge	(<u>Cyperus</u> <u>esculentus</u>)

+Partial control (suppression) only.

+Southeast Region only

Existing stands of nutgrass must be turned under and chopped up thoroughly before treatment. Cultivation is suggested in addition to SUTAZINE+ treatment in fields with moderate to heavy nutsedge infestations.

GENERAL USE PRECAUTIONS

Read all label directions before using.

Applied according to directions and under normal growing conditions, SUTAZINE+ will not harm the treated crop. During germination and early stages of growth, extended periods of unusually cold and wet or hot and dry weather, insect or plant disease attack, carryover ~~pesticide residues, the use of certain soil-applied systemic insecticides,~~ improperly placed fertilizers or soil insecticides may create abnormal conditions that weaken crop seedlings. SUTAZINE+ used under these abnormal conditions could result in crop injury.

Make only one application per crop. After treatment with SUTAZINE+, do not plant any crop except corn until the following year or injury may occur. Do not apply after June 10.

Following corn harvest, thoroughly invert soil (deep disk or plow) in the fall or early spring to minimize injury potential to rotational spring-seeded crops. Corn or soybeans may be planted the spring season following treatment. Injury may occur to soybeans planted in North Central and Northwest Iowa, South Central and Southwest Minnesota, Northeast Nebraska and Southeast South Dakota on soils having a calcareous surface layer. Small grains may be planted 15 months following treatment. All other atrazine-sensitive crops may be planted 18 months after application.

Do not use on milo or sorghum. Do not use on corn seed stock (Breeders, Foundation, or Increase). SUTAZINE+ may be used on Production seed corn.

SUTAZINE+ is recommended for use on mineral soils only (soils containing less than 10% organic matter).

Do not contaminate irrigation water (used for crops other than corn) or water used for domestic purposes.

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Do not contaminate food or feed.

Keep container closed when not in use. Do not store near seeds, fertilizers, or foodstuffs.

Do not use in Arizona or in the ten Southernmost California counties.

In irrigated areas, do not apply SUTAZINE+ before pre-irrigation.

DIRECTIONS FOR USE OF SUTAZINE+

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

SUTAZINE+ is a selective herbicide which is mixed (incorporated) into the soil for control of weeds listed on this label. SUTAZINE+ controls annual grasses as their seeds germinate by interfering with normal germination and seedling development. It does not control established weeds.

SUTAZINE+ can be mixed with water or combined with fluid (solution, slurry, or suspension) fertilizers and applied as a spray, or can be impregnated on dry bulk fertilizers.

SUTAZINE+ FLUID FERTILIZER TANK MIX

SUTAZINE+ can be combined with fluid fertilizers for applications made before planting. However, the physical compatibility with these fluid fertilizers must be determined before combining in the spray tank, and even though found to be compatible, constant agitation is necessary to keep the SUTAZINE+ evenly mixed with the fluid fertilizer during application.

Refer to Appendix II regarding the procedure for testing the compatibility of SUTAZINE+ with fluid fertilizers.

IMPREGNATION ON DRY BULK FERTILIZERS

Dry bulk fertilizers (except single superphosphate, treble superphosphate and nitrate fertilizers) may be impregnated or coated with SUTAZINE+. However, uniform distribution of SUTAZINE+ on fertilizer particles and uniform application are necessary to assure good results. See Appendix III for information and directions for impregnation and use for these combinations.

APPLICATION AND SOIL INCORPORATION DIRECTIONS

SPRAY APPLICATION AND MECHANICAL INCORPORATION

Apply the recommended dosage in 10 to 50 gallons of water per acre (use the higher volume in arid areas) using a properly calibrated,

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low-pressure type nozzle (flood, fan or swirl chamber) on boomtype sprayer having good, but not excessive agitation. Check frequently during application to be sure nozzles are free from clogging and are delivering a uniform spray pattern.

The herbicides must be incorporated into the soil within 4 hours (within 1 hour in Western Region) to prevent loss of the SUTAZINE+. Whenever possible, application and incorporation should be done in the same operation. Apply the herbicides to soil dry enough to permit good soil mixing.

See Appendix I for Soil Mixing (incorporation) before Planting Directions.

Loss of weed control will result from any delay in incorporation if SUTAZINE+ is applied to a moist soil surface.

If there must be a delay (less than 4 hours, except less than 1 hour in Western Region) in incorporation of the herbicides when application and incorporation are done in separate operations, SUTAZINE+ must be applied to a dry soil surface (at least 1/2 inch deep) and free from dew and incidental moisture.

IMPORTANT: Thorough mixing of SUTAZINE+ in the soil is necessary. The soil must be in good tilth. Improper discing or poor tilth (large clods) may result in unsatisfactory control.

INCORPORATION OF IMPREGNATED DRY BULK FERTILIZER

The application and incorporation of SUTAZINE+ must be carried out on the same day and delayed only if soil moisture conditions permit. See Appendix III for directions on the delay in soil incorporation.

CENTER PIVOT SPRINKLER APPLICATION

Apply SUTAZINE+ with irrigation water before planting (see PLANTING), or immediately after planting before either corn or weeds emerge. It is important that application be done immediately after the last tillage operation since poor results will occur if the weeds have germinated before application of the herbicide. Meter the pre-mixed SUTAZINE+ into the irrigation water during the entire period. Apply in 1/2 to 1 inch of water or sufficient water to penetrate the soil to a depth of 5 to 7 inches. Good agitation should be maintained during the entire application period.

USE PRECAUTIONS:

- A. "Apply this product only through sprinkler including center pivot irrigation system. Do not apply this product through any other type of irrigation system."

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- B. "Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water."
- C. "If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts."
- D. "Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place."
- E. "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."

POSTING REQUIREMENTS

"Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses."

"Posting must conform to the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area towards the sensitive area. The signs shall be printed in English. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period."

"All words must consist of letters at least 2-1/2 inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER."

CENTER PIVOT SPRINKLER REQUIREMENTS

1. "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."

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2. "The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump."
3. "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."
4. "The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops."
5. "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."
6. "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."
7. "Do not apply when wind speed favors drift beyond the area intended for treatment."

PLANTING

Do not plant seed deeper than 2 inches. For a SUTAZINE+ application made before planting, seeding can be done immediately, or it may be delayed up to 2 weeks*. To avoid removing SUTAZINE+ from the row (with loss of weed control in the row), do not move or shape soil after treatment, such as by planting in deep furrows. If it is necessary to work the soil following application and incorporation but before planting, do not work the soil deeper than the depth the herbicides were incorporated.

*For Wild Cane - See Special Recommendations.

RECOMMENDATIONS FOR USE ON CORN (FIELD, SWEET, SILAGE AND POPCORN)

NOTE: SUTAZINE+ is not recommended on corn grown in Arizona, or in the ten Southernmost California counties.

For all uses, cultivation is recommended in addition to the SUTAZINE+ treatment in fields with moderate to heavy infestations of wild cane, nutgrass, sandbur, johnsongrass seedlings, rhizome bermudagrass, Texas panicum or volunteer sorghum.

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Broadcast Rates Per Acre Conventional sprays and center pivot sprinklers.

For control of annual grasses and broadleaf weeds: Use 5.25 to 7 pints of SUTAZINE+ per acre. Use the higher rate of SUTAZINE+ on medium (medium fine textured-silt loam, clay loam, etc.) to fine (fine textured-clay) soils and for sandbur and johnsongrass seedling control.

For control of nutsedge and Texas panicum (in addition to the broadleaf weeds and other annual grasses listed): Use 7 to 10.5 pints of SUTAZINE+ per acre. Use the higher rates of SUTAZINE+ on medium (medium fine textured-silt loam, clay loam, etc.) soils, fine (fine textured-clay) soils and for heavy infestations.

For partial control (suppression) of Wild Cane (and for control of the broadleaf weeds and annual grasses listed): When applied and incorporated immediately before planting, SUTAZINE+ at the rate of 10.5 pints per acre on a broadcast basis will reduce competition from wild cane. On continuous corn acreage with high cane seed population, rotation to another crop is recommended.

Suppression of wild cane may be improved if all the following practices are followed:

1. ~~1. Fall or Spring Moldboard Plow.~~
2. Before application, the soil should be well worked with a disc and dry enough to permit good soil mixing of the herbicide (incorporation). All trash should be worked into the soil.
3. Delay application until soil warms to a constant 55 degrees or greater temperature. Plant immediately.
4. Incorporate thoroughly. Use recommended incorporation equipment and procedures found on this label.
5. Cultivate immediately if wild cane emerges. Cultivation should be shallower than the depth used when incorporating the herbicide.

For control of Johnsongrass and Bermudagrass (in addition to the broadleaf weeds and annual grasses listed): Apply and disc-incorporate SUTAZINE+ just before planting at the rate of 7 to 10.5 pints per acre. Use the higher rate of SUTAZINE+ on medium (medium fine textured silt loam, clay loam, etc.) soils, fine (fine textured-clay) soils, for rhizome johnsongrass suppression and for heavy infestations. Disc a second time at right angles to the first. Cultivate at least once, preferably twice.

Johnsongrass: Using a program of plowing and discing followed by SUTAZINE+ will give good control of seedlings and greatly reduce competition from plants coming from rhizomes.

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In some areas discing 2 to 3 times spaced at 4 to 6 week intervals during fall and winter can be done. If this cannot be done, start with fall plowing followed by several discings in the spring before planting. The discing cuts rhizomes into small pieces and brings them to the surface, where both the weather and SUTAZINE+ will kill or weaken them.

Rhizome Bermudagrass: The rhizomes and stolons of bermudagrass must be cut up thoroughly so that four or less nodes remain on a strand. For control of bermudagrass, the disc must be set to cut 6 inches deep.

For Suppression of Broadleaf Signalgrass: For early and mid-season suppression, use 10.5 pints of SUTAZINE+ per acre. Cultivation or application of a post-emergence herbicide recommended for broadleaf signalgrass will aid in extending control to late season.

For Suppression of Hemp Dogbane: For early and mid-season suppression, use 10.5 pints of SUTAZINE+ per acre. Cultivation or application of a post-emergence herbicide recommended for hemp dogbane may aid in extending control beyond mid-season.

Fall Application: For use only in Minnesota, Northern Iowa (North of Interstate 80), Northeast Nebraska (North of Interstate 80 and East of State Highway 14), South Dakota (East of Missouri River), Wisconsin and Northern Illinois (North of Interstate 80). Apply and incorporate 10.5 pints SUTAZINE+ per acre in the late fall before the ground freezes.

NOTE: Do not use Fall application for suppression of wild cane.

CULTURAL PRACTICES FOLLOWING APPLICATION

Should weeds develop, a shallow cultivation or rotary hoeing will generally result in better weed control. When cultivating for any reason, it should be shallow; i.e., no more than 1/2 the depth the herbicide was incorporated.

APPENDIX I

SOIL MIXING (INCORPORATION) BEFORE PLANTING DIRECTIONS

The following equipment commonly is used for soil mixing (incorporation) before planting.

Power-Driven Cultivation Equipment (recommended on all soil types previously primary tilled): All PTO driven cultivation tools must be adjusted so as to have a tillage action speed (originating from internal gears and/or tractor gear) synchronized to the tractor's forward speed so that thorough soil mixing is obtained.

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- a. Horizontal action: set to cut 4 to 6 inches deep.
Example - Lely Roterra, Niemeyer or like equipment.
- b. Vertical action: set to cut 3 to 4 inches deep.
Example - Rototiller, side-winder or like equipment.

Tandem discs (recommended on all soil types): Set to cut to a depth of 4 to 6 inches, operated at 4 to 6 mph followed by a spike-tooth harrow or some other leveling device which extends beyond the ends of the discs. For more thorough mixing (for control of deep-germinating grasses - wild cane, seedling johnsongrass and nutsedge), disc in two different directions. When discing the second time, the disc should be reset to cut no deeper than 4 to 6 inches.

Field cultivator (recommended on lighter soils in good tilth): Use 3 to 4 rows of sweeps spaced at 7 inch or less intervals and staggered so that no soil is left unturned, followed by a spike-tooth harrow pulled behind the cultivator. Do not use chisel plows to incorporate. Set the cultivator to cut 4 to 6 inches deep, operated at 5 mph or more. The field cultivator should not be used alone as an incorporation tool where control of deep-germinating weeds such as nutgrass, johnsongrass seedlings or wild wild cane is desired. For control of these weeds, use a disc alone for at least one of the passes over the field.

APPENDIX II

PROCEDURE FOR TESTING THE COMPATIBILITY OF SUTAZINE+ WITH FLUID FERTILIZERS.

The following procedure is suggested for determining whether SUTAZINE+ may be combined with a specific fluid fertilizer for spray tank application.

MATERIALS REQUIRED:

1. SUTAZINE+
2. Fluid fertilizer to be used.
3. Tank mix adjuvants for fluid fertilizer combinations: Complex*, Sponto 168-D*, Unite* or equivalent. The adjuvant which provides the best compatibility depends on the specific fertilizer involved.

*Complex, Kalo Laboratories Inc., Kansas City, Missouri; Sponto 168-D, Witco Chemical Company, Houston, Texas; Unite, Hopkins Agricultural Chemical Company, Madison, Wisconsin.

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4. Two one-quart, wide-mouth glass jars with lids.
 5. Measuring spoons; a graduated pipette or cylinder will provide more accurate measurement; 1 tablespoon equals 3 teaspoons, 1 teaspoon equals approximately 5 milliliters.
 6. Measuring cup, 8 oz. (237 ml).

PROCEDURE:

1. Pour a pint (473 ml) of the fluid fertilizer into each of the quart jars.
2. Add adjuvant to one of the jars and mix (see next rate table).
3. Add the SUTAZINE+ to both jars
4. Close both jars with lids and mix the contents by turning the jars upside down ten times.
5. Inspect the surface and body of the mixtures:
 - (A) Immediately after completing the jar inversions.
 - (B) After allowing the jars to stand quietly for 30 minutes.
 - (C) And then again after turning the jars upside down 10 times.

If a uniform mix cannot be made, the mixture should not be used. If either mixture remains uniform for 30 minutes, the combination may be used. Should either mixture separate after 30 minutes, but readily remix uniformly with ten jar inversions, the mixture can be used if adequate agitation is maintained in the tank. If the mixture with adjuvant is satisfactory, but the one without adjuvant is not, be sure to use the adjuvant in the spray tank. Add the adjuvant at a rate of 3 pints per 100 gallons of fluid fertilizer; foaming can be minimized by using moderate agitation.

If nondispersible oil, sludge or clumps of solids form in the mixtures, the combination should not be used.

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Rate Table* for SUTAZINE+ and Adjuvant**
with the Fluid Fertilizer

Gallons of Fluid Fertilizer to be applied per acre	ml. of SUTAZINE+ to be added to 1 pint of Fertilizer	
	ml.	tsp.
10	10-1/2	2
15	7	1-1/3
20	5-1/4	1
25	4-1/4	3/4
30	3-1/2	2/3
40	2-1/2	1/2

* Based on field rate of 1 pound SUTAN® and 1/4 pound atrazine per acre in the fertilizer volumes indicated. Increase volume proportionately to correspond with intended field rate in terms of pounds active ingredients per acre (e.g. for field rate of 4 pounds actual SUTAN® and 1 pound atrazine in 40 gallons fertilizer per acre, add 10 ml. or 2 tsp. SUTAZINE+ to each jar for compatibility testing purposes).

** Two (2) milliliters or one-half (1/2) teaspoon of adjuvant should be added to 1 pint of fluid fertilizer in order to equal the rate of 3 pints of adjuvant per 100 gallons of fluid fertilizer.

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APPENDIX III

SUTAZINE+ IMPREGNATION ON DRY BULK FERTILIZERS

CAUTION: SUTAZINE+ alone or in combination with other herbicides must not be impregnated on ammonium nitrate, potassium nitrate or sodium nitrate fertilizers. Such mixtures may cause explosion and fire.

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

SUTAZINE+ may be impregnated on many dry bulk fertilizers (1) and applied and incorporated into the soil either in the fall before the ground freezes or before planting for the control of many grassy and broadleaf weeds.

All SUTAZINE+ label and supplementary literature instructions and precautions regarding rates per acre, soil type and soil incorporation, application and other directions must be followed.

Test results have shown that SUTAZINE+ on many dry bulk fertilizers gives weed control equal to SUTAN+ 6.7-E or tank mixtures of SUTAN+ 6.7-E/ATRAZINE (80W or 4L) applied as a spray in water or liquid fertilizer, or impregnated on dry bulk fertilizer. However, uniform impregnation of the SUTAZINE+ on the dry fertilizer particles and uniform application in the field are necessary to assure good results.

A minimum of 200 pounds and a maximum of 700 pounds of approved fertilizer ingredients (1) impregnated with the appropriate amount of SUTAZINE+ must be applied per acre.

For impregnating the SUTAZINE+ on dry fertilizers, use a closed rotary-drum type mixer equipped with suitable spraying equipment. The spray nozzles should be positioned inside of the mixer to provide uniform spray coverage of the tumbling fertilizer. The SUTAZINE+ should be sprayed uniformly onto the fertilizer using a fine spray pattern. SUTAZINE+ is a relatively viscous material, particularly at low temperatures (20°F). At warmer temperatures (45-80°F) the viscosity is significantly lower (see viscosity data later in this appendix).

The physical properties of fertilizers vary, particularly in liquid absorptive capacity. When absorptivity is sufficient, simple spray impregnation of the fertilizer with SUTAZINE+ provides a satisfactory dry mixture.

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If the absorptive capacity is not adequate, use of a drying agent is required to provide dry, free-flowing mixtures.

For mixtures to be used in spinning-disc applicators, Microcel E calcium silicate powder (Manville, Filtration & Minerals) is recommended for use as a drying agent.

For mixtures to be used in pneumatic applicators, Microcel E or Agsorb 16/30 RVM-MS granular-clay (Oil-Dri Corporation) is recommended for use as the drying agent.

The drying agent should be added separately and uniformly to the prepared pesticide-fertilizer mixture, in a quantity that is sufficient to provide a suitably free-flowing mixture. Generally, less than 2% Microcel E or 5% Agsorb 16/30 RVM-MS by weight is required.

The amount of SUTAZINE+ actually required in the manufacture of individual fertilizer mixtures should be determined carefully for each production operation (2). This is necessary to ensure that the amount of SUTAZINE+ actually contained in the mixture applied to the soil represents the correct rates of use.

Bulk fertilizers impregnated with SUTAZINE+ should be applied immediately, NOT STORED. All bulk containers should be tightly covered while the products are being transported and applied to reduce chances of SUTAN loss via volatilization.

Do not combine SUTAZINE+ with single super-phosphate (0-20-0) or treble superphosphate (0-46-0).

INCORPORATION OF IMPREGNATED FERTILIZERS

When application and incorporation are done in separate operations, SUTAZINE+ impregnated on dry fertilizer must be incorporated on the same day as applied. Application must be made on a dry soil surface (at least 1/2 inch deep) free from dew and incidental moisture.

SUTAZINE+ Physical Data

Specific Gravity 20/20°C:	1.019 (typical)
Pounds/Gallon (20°C):	8.480 (typical)
Flashpoint:	>216°F (Setaflash closed cup)
Viscosity:	1120 centipoise at 20°F
(typical)	660 centipoise at 32°F
	430 centipoise at 45°F
	275 centipoise at 60°F
	175 centipoise at 80°F
	145 centipoise at 95°F

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(1) APPROVED DRY FERTILIZER INGREDIENTS FOR USE WITH SUTAZINE+

	N	P	K
Ammonium Sulfate	21	0	0
Ammonium Phosphate-Sulfate	16	20	0
Diammonium Phosphate	18	46	0
Monoammonium Phosphate	11	56	0
Potassium Chloride	0	0	60
Potassium Sulfate	0	0	52
Urea*	45	0	0

*Some ureas may be phytotoxic when high rates are applied to corn. Use only urea rates known to be safe for corn application.

NOTE: Sul-Po-Mag, K-Mag and 11-48-0 have been shown to be compatible with SUTAZINE+ and are approved for use.

(2) RATE CHART FOR THE IMPREGNATION OF DRY BULK FERTILIZERS WITH SUTAZINE+

FERTILIZER RATE/ACRE	SUTAZINE+ Rate/Acre		
	5-1/4 pts per acre	7 pts per acre	10-1/2 pts per acre
200 lbs	26-1/4 qts/ton	35 qts/ton	52-1/2 qts/ton
250 lbs	21 qts/ton	28 qts/ton	42 qts/ton
300 lbs	17-1/2 qts/ton	23-1/3 qts/ton	35 qts/ton
350 lbs	14-1/2 qts/ton	20 qts/ton	30 qts/ton
400 lbs	13-1/4 qts/ton	17-1/2 qts/ton	26-1/4 qts/ton
450 lbs	11-2/3 qts/ton	15-1/2 qts/ton	23-1/3 qts/ton
500 lbs	10-1/2 qts/ton	14 qts/ton	21 qts/ton
550 lbs	9-1/2 qts/ton	12-3/4 qts/ton	19 qts/ton
600 lbs	8-3/4 qts/ton	11-2/3 qts/ton	17-1/2 qts/ton
650 lbs	8 qts/ton	10-3/4 qts/ton	16-1/4 qts/ton
700 lbs	7-1/2 qts/ton	10 qts/ton	15 qts/ton

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STORAGE AND DISPOSAL

PROHIBITIONS: Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container.

STORAGE: Keep container tightly closed when not in use. Do not store near seeds, fertilizers or foodstuffs. Can be stored at temperatures as low as minus 30°F.

PESTICIDE DISPOSAL: Rinse spray equipment. 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:

METAL - 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.

PLASTIC - Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

NOTICE - READ CAREFULLY

CONDITIONS OF SALE: Stauffer (and seller) offer(s) this product for sale subject to, and buyer and all users are deemed to have accepted, the following conditions of sale and warranty which may only be varied by written agreement of a duly authorized representative of Stauffer.

WARRANTY LIMITATION: Stauffer 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 on the label, subject to the inherent risks referred to below. Stauffer makes no other express warranties; THERE IS NO IMPLIED WARRANTY OF MERCHANTABILITY and there are no warranties which extend beyond the description on the label hereof.

INHERENT RISKS: The directions for use of this product are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks associated with use. Buyer assumes all risks associated with use or application of this product contrary to label instructions or resulting from extraordinary weather conditions.

LIMITATION OF LIABILITY: In no case shall Stauffer be liable for special, indirect, or consequential damages resulting from the use or handling of this product and no claim of any kind shall be greater in amount than the purchase price of the product in respect of which such damages are claimed.

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(Stauffer Shield)

Container Text for
Plastic Container
Panel 1

SUTAZINE®+

Selective Herbicide

ACTIVE INGREDIENTS:

S-Ethyl diisobutylthiocarbamate	56.80%
Atrazine: 2-chloro-4-(ethylamino)-6-(isopropylamino)- s-triazine	13.90%
Related Triazines	0.30%
<u>INERT INGREDIENTS:</u>	29.00%
	<u>100.00%</u>

6-ME (Contains 6.0 pounds active ingredients per gallon.)

PREPLANT INCORPORATED HERBICIDE FOR ANNUAL GRASS AND BROADLEAF
WEED CONTROL IN CORN (Field, Sweet, Silage and Popcorn)

KEEP OUT OF REACH OF CHILDREN

D A N G E R

CORROSIVE, CAUSES IRREVERSIBLE EYE DAMAGE

HARMFUL IF SWALLOWED

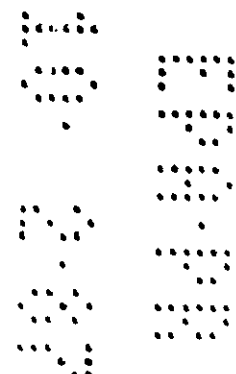
ACCEPTED

NOV 1 0 1987

Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under
EPA Reg. No. 476-2213

See next panel for additional precautionary statements and statement
of practical treatment

EPA Reg. No. 476-2213 2.5 Gal. Net 9.45 L
EPA Est. No. 476-NB-1



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SUTAZINE®+

Selective Herbicide

Preplant Incorporated Herbicide for Annual Grass and Broadleaf Weed Control in Corn

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

D A N G E R

CORROSIVE, CAUSES IRREVERSIBLE EYE DAMAGE. HARMFUL IF SWALLOWED. Avoid contact with skin, eyes and clothing. Avoid breathing spray mist. Wear goggles, rubber gloves and protective clothing when handling. Wash skin with soap and water immediately after contact. Flush eyes with water.

Do not apply this product in such a manner as to directly or through drift expose workers or other persons. When applied through sprinkler irrigation method of application, the area being treated must be vacated by unprotected persons.

ENVIRONMENTAL HAZARDS: Atrazine leaches readily and accepted label rates have been found to result in contamination of water supplies by way of groundwater. Therefore, users are advised to avoid use of atrazine in well-drained soils, particularly in areas having high groundwater tables.

This pesticide is toxic to aquatic invertebrates. Do not apply directly to water or wetlands. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water by cleaning of equipment or disposal of wastes.

REFER TO PRODUCT LABELING FOR USE RESTRICTIONS TO PROTECT ENDANGERED SPECIES:

STATEMENT OF PRACTICAL TREATMENT

FIRST AID

If a known exposure occurs or is suspected, immediately start the procedures given below. If further treatment is required, CONTACT A POISON CENTER, A PHYSICIAN, OR THE NEAREST HOSPITAL.

IF SWALLOWED

Immediately give several glasses of water and induce vomiting by gagging the victim with a finger placed on the back of the victim's tongue. Give fluids until vomitus is clear. If victim is unconscious or convulsing, do not induce vomiting or give anything by mouth.

EYE CONTACT

Immediately flush the eyes with plenty of running water for at least 15 minutes. Hold the eyelids apart during the flushing to ensure rinsing of the entire surface of the eye and lids with water. Call a physician.

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SUTAZINE®+

Selective Herbicide

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SKIN CONTACT

Flush affected areas with plenty of water for several minutes. Remove and clean any contaminated clothing and shoes. Seek medical attention if skin irritation occurs.

INHALATION

If inhaled, remove to fresh air. Seek medical attention if respiratory irritation occurs or breathing becomes difficult.

FOR ADDITIONAL MEDICAL INFORMATION, CALL COLLECT, STAUFFER EMERGENCY MEDICAL ASSISTANCE, (203) 226-6602 OR CHEMTREC, (800) 424-9300.

For other product information, contact your local Stauffer Chemical Company Distributor or see Product Safety Information Sheet.

CROPS PROTECTED

Field Corn
Sweet Corn
Silage Corn
Popcorn

TARGET WEEDS

ANNUAL GRASSES

Barnyardgrass, Watergrass
Crabgrass
Fall Panicum
Field Sandbur
Giant Foxtail
Green Foxtail
Wild Oats
Yellow Foxtail

PERENNIAL WEEDS

~~Hemp Dogbane~~
Purple Nutgrass, Nutsedge
Yellow Nutgrass, Nutsedge

ANNUAL BROADLEAF WEEDS:

Annual Morningglory
Common Cocklebur
Common Lambsquarters
Jimsonweed
Nightshade
Prostrate Pigweed
Smartweed
Velvetleaf

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SUTAZINE[®]+

Selective Herbicide

IMPORTANT

Read all label directions before using. See attached booklet for use precautions, directions and recommendations.

STORAGE AND DISPOSAL

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(Stauffer Shield)

Panel 3. (continued)

SUTAZINE®+
Selective Herbicide

LIMITATION OF LIABILITY: In no case shall Stauffer be liable for special, indirect, or consequential damages resulting from the use or handling of this product and no claim of any kind shall be greater in amount than the purchase price of the product in respect of which such damages are claimed.

This product is sold only for uses stated on its label. No express or implied license is granted to use or sell this product under any patent in any country except as specified: Country: United States of America Patent Nos. 4,021,224; 4,137,070.

RS-870925

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STAUFFER CHEMICAL COMPANY
Westport, CT. 06881-0850

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