

Page 1 of 5 Sutazine + Container RS-051490A

# RESTRICTED USE PESTICIDE (GROUND WATER CONGERNS)

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.

THIS PRODUCT IS A RESTRICTED USE HERBIGIDE DUE TO GROUND WATER CONCERNS. USERS HUSI READ AND FOLLOW ALL PRECAUTIONARY STATEMENTS AND INSTRUCTIONS FOR USE IN ORDER TO MINIMIZE POTENTIAL FOR ATRAZINE TO REACH GROUND WATER.

#### SUTAZINE®+ Selective Herbicide

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

# 

Contains 4.8 pounds S-Ethyl dissobutylthiocarbamate and 1.2 pounds atrazine active ingredient per gallon.

# KEEP OUT OF REACH OF CHILDREN

#### DANGER

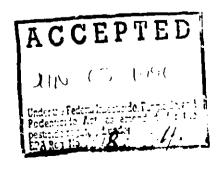
# CORROSIVE, CAUSES IRREVERSABLE EYE DAMAGE

#### HARMFUL IF SWALLOWED

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

EPA Reg. No. 10182-248 EPA Est. No.

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Made in USA by ICI Agricultural Products ICI Americas Inc. Wilmington, Delaware 19897



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#### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### DANGER

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 as manner as to directly or through drift expose workers or other persons.

Users are required to wear long sleeve shirts and long pants or equivalent, themical resistant gloves, and boots (waterproofed). In addition, persons involved in mixing or loading operations are required to use chemical resistant rubber or beoprene gloves and a face shield or goggles.

#### 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 advisly to avoid use of atrazine in well-drained soils, particularly in areas having high groundwater tables.

Ground water contamination may be reduced by diking and flooring of parmament liquid bulk storage sites with an impermeable material.

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 when disposing of aquipment washwaters.



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#### 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.

# IF IN EYES

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.

#### IP ON SKIN

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

# IF INHALED

Remove to fresh air. Seek medical attention if respiratory irritation occurs or breathing becomes difficult.

FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE CALL 1-800-F-A-S-T-M-E-D (327-8633). FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident call CHEMITREC 1-800-424-9300.

For other product information, contact your local ICI Americas Inc. Distributor or see Material Safety Pata Sheet.

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#### 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

# ANNUAL BROADLEAF WEEDS

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

# PERENNIAL WEEDS

Hemp Dogbane Purple Nutsedge Yellow Nutsedge

#### **IMPORTANT**

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



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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: 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

NOTICE TO BUYER AND USER: Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal use conditions, or under conditions not reasonably foreseeable to Seller, and Buyer and User assume the risk of any such use. SELLER DISCLAIMS ALL OTHER WARRANTIES, EXPRESSED OR INPLIED, INCLUDING ANY WARRANTY OF FITNESS OR MERCHANTABILITY. SELLER SHALL NOT BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT AND SELLER'S SOLE LIABILITY AND BUYER'S AND USER'S EXCLUSIVE REMEDY SHALL BE LIMITED TO THE REFUND OF THE PURCHASE PRICE.

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ACTIVE INGREDIENTS:
S-Ethyl diisobutylthiocarbamate 56.80%
Atrazine:
2-chloro-4-(ethylamino)-6-(isopropylamino)-s-triazine
Related Triazines
INERT INGREDIENTS: 29.00%
Total 1 <del>00.00%</del>
Contains 4.8 pounds S-ethyl diisobutylthiocarbamate and
1.2 pounds atrazine active ingredient per gatton.

#### KEEP OUT OF REACH OF CHILDREN

#### DANGER

READ ALL LABEL DIRECTIONS BEFORE USING

EPA Reg. 10182-248

Made in U.S.A. by ICI Agricultural Products
A business unit of ICI Americas Inc.
Wilmington, DE 19897



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Ground water contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material

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# WEEDS CONTROLLED BY SUTAZINE+

This product contains atrazine and may not control weeds that are known, or suspected to be triazine resistant.

# **ANNUAL GRASSES**

Barnyardgrass, Watergrass

Broadleaf Signalgrass\*+

Crabgrass

(Echinochloa cruṣ-galli)

(Brachiaria platyphylla)

(Digitaria spp.)

Fall Panicum (Panicum dichotomiflorum)

Field Sandbur\*

(Cenchrus paucifiorus)

Giant Foxtail

(Setaria faberi)

Green Foxtail

Goosegrass

(Setaria viridis)

(Eleusine indic:)

Seedling Bermudagrass

(Cynodon dactylon)

Seedling Bermudagrass (Cynodon dactylon)
Seedling Johnsongrass\* (Sorghum halepense)
Texas Panicum\*+, Buffalograss, Coloradograss (Panicum texanum)

Volunteer Sorghum\* (Sorghum spp.)
Wild Cane\*+, Shattercane, Black Amber Cane.

Chicken Corn, Statter Cane (Sorghum bicolor)-

(See Wild Cane Rate and Cultural Recommendations)
Wild Oats
Witchgrass
Yellow Foxtail

(Aver 1 fatua)
(Panicum capillare)
(Setaria glauca)

+ 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
Common Lambsquarters
Common Purslane
Florida Purslane

(Richardia scabra)
(Fatura stramonium)

(Xanthium pensylvanicum)
(Chenopodium album)
(Portulaca oleracea)
(Richardia scabra)

Jimsonweed (<u>Fatura stramonium</u>
Mustards (<u>Brassica spp.</u>)
Nightshade (<u>Solanum spp.</u>)

Prostrate Pigweed (Amaranthus graecizans)



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Ragweed
Redroot Pigweed
Sicklepod+, Coffeeweed
Smartweed
Smooth Pigweed
Velvetleaf
+Southeast Region Only

(Ambrosia app.)
(Amaranthus retroflexus)
(Cassia obtusifolia)
(Polygonum app.)
(Amaranzhus hybridus)
(Abutilon theophrasti)

#### **PERENNIAL WEEDS:**

Hemp Dogbane+
Purple Nutsedge
Rhizome Bermudagrass+
Rhizome Johnsongrass+
Yellow Nutsedge

(Apocynum cannabinum)
(Cyperus rotundus)
(Cynodon dactylon
(Sorghum halepense)
(Cyperus esculentus)

- + Partial control (suppression) only.
- + Southeast Region only

Existing stands of nutsedge 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 labe! 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 placted the spring season following treatment. Injury may occur to soybeans planted in North Central and Northwest lows, South Central and Southwest Minnesots, Northeast Nebraska and





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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 mile 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.

Do not contaminate food or feed.

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

Do not use in Arizona or in the ten Southern most California counties.

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

#### DIRECTIONS FOR USE

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

This product may not be mixed or loaded, or used within 50 feet of all wells including abandoned wells, drainage wells, and sink holes.

Do not apply this product through any type of inigation system.

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.

Postemergence application to commust be made before com reaches 12 inches in height.

The maximum application rate for com is 3 lbs. strazine active ingredient per acre per calendar year,

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.





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#### 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 super phosphate 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,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.

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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

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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.

# **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.

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

NOTE: SUTAZINE+ is not recommended on corr. grown in Arizona or in the ten Southern most California counties.

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

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 SUTAZ!NE+ per acre. Use the higher rate of SUTAZ!NE+ 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. Fail 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. Interpretate 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.

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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.

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 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 hosing will generally result in better weed control. When cultivating for any reason, it should be shallow; i.e., no more than 1/2 the depih the herbicide was incorporated.

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# 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 tiliage action speed (originating from internal gears and/or tractor gear) synchronized to the tractor's forward speed so that thorough soil mixing is obtained.

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

<u>Tandem discs</u> (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 spiketooth harrow or some other leveling device which extends beyond the ends of the discs. For more thorough mixing (for control of deep-germinating grasses - id cane, seedling johnsongrass and nut sedge), disc in two different directions. When discing the second time, the disc should be reset to cut no deeper than 4 to 6 inches.

<u>Field cultivate</u> (recommended on lighter soils in good tilth): Use 3 to 4 rows of swe ps spaced at 7 inch or less intervals and staggered so that no soil is left unturned, followed by a spiketooth 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 cane is desired. For control of these weeds, use a disc alone for at least one of the passes over the field.



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#### **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: Compex\*,
  Sponto 168-D\*, Unite\* or equivalent. The adjuvant which provides the best compatibility depends on the specific fertilizer involved.
  - \*Compex, Kalo Laboratories Inc., Kansas City, Missouri; Sponto 168-D, Witco Chemical Company, Houston, Texas; Unite, Hopkins Agricultural Chemical Company, Madison, Wisconsin.
- 4. Two one-quart, wide-mouth glass jars with lids.
- 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.
- 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.
  - (E, After allowing the jars to stand quietly for 30 minutes.
  - (C) And then again after turning the jars upside down 10 times.

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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 tenjar 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.

# Procedure For Testing The Compatibility of SUTAZINE+ With Fluid Fertilizer 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	
	Milliliters (mL)	Teaspoon (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 mbdure.

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.



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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% Agoorb 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 <u>applied immediately</u>, 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 <sup>0</sup> 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+

	<u>N</u>	<u>P</u>	<u>K</u>
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) <u>FATE CHART FOR THE IMPREGNATION OF DRY BULK FERTILIZERS WITH SUTAZINE+</u>

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

Notice to Buyer and User: Selier warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal use conditions, or under conditions not reasonably foreseeable to Seller, and Buyer and User assume the risk of any such use.

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