

PM 25

241-376

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<p>U.S. ENVIRONMENTAL PROTECTION AGENCY OFFICE OF PESTICIDES PROGRAMS REGISTRATION DIVISION (WH-567) WASHINGTON, D.C. 20460</p> <p>NOTICE OF PESTICIDE: <input type="checkbox"/> REGISTRATION <input checked="" type="checkbox"/> REREGISTRATION (Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended)</p>	<p>EPA REGISTRATION NO. 241-376</p>	<p>DATE OF ISSUANCE MAY 17 1996</p>
<p>NAME AND ADDRESS OF REGISTRANT (Include ZIP code)</p> <p>American Cyanamid Co. P.O. Box 400 Princeton, NJ 08543</p>	<p>TERM OF ISSUANCE</p>	
<p>NAME OF PESTICIDE PRODUCT Steel® Herbicide</p>		
<p>NOTE: Changes in labeling formula differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above U.S. EPA registration number.</p>		
<p>On the basis of information furnished by the registrant, the above named pesticide is hereby Registered/Reregistered under the Federal Insecticide, Fungicide, and Rodenticide Act.</p>		
<p>A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.</p>		
<p>Registration is in no way to be construed as an indorsement or approval of this product by this Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.</p>		
<p>This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A) provided that you:</p>		
<ol style="list-style-type: none"> 1. Submit/cite all data required for registration/reregistration of your product under FIFRA Section 3(c)(5) and sec. 4 when the Agency requires all registrants of similar products to submit such data. 2. Make the labeling changes listed below before you release the product for shipment: <ol style="list-style-type: none"> a. Add the phrase "EPA Registration No. 241-376" to your label before you release the product for shipment. 3. Submit five (5) copies of your final printed labeling before you release the product for shipment. 		
<p>If these conditions are not complied with, this registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.</p>		
<p>A stamped copy of the label is enclosed for your records.</p>		
<p><input type="checkbox"/> ATTACHMENT IS APPLICABLE</p>		
<p>SIGNATURE OF APPROVING OFFICIAL</p>		<p>DATE MAY 17 1996</p>

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STEEL™ herbicide

FOR USE IN SOYBEANS

ACTIVE INGREDIENT:

Imazaquin (2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-3-quinolinecarboxylic acid)	1.9%
Imazethapyr (±)-2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-5-ethyl-3-pyridinecarboxylic acid	1.9%
Pendimethalin (N-1-ethylpropyl)-3,4-dimethyl-2,6-dinitrobenzenamine	25.4%
INERT INGREDIENTS *	70.8%
TOTAL	100.0%

STEEL contains 2.59 pounds of active ingredient per gallon (2.25 pounds ai pendimethalin, 0.17 pounds acid equivalent of imazaquin and 0.17 pounds acid equivalent of imazethapyr.

*Contains petroleum distillates.

EPA Reg. No. 241-

EPA Est. No.

KEEP OUT OF REACH OF CHILDREN
DANGER!/PELIGRO!

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

In case of an emergency endangering life or property involving this product, call collect, day or night, Area Code 201-835-3100.

STATEMENT OF PRACTICAL TREATMENT

IF IN EYES: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention.

IF ON SKIN: Wash with plenty of soap and water. Get medical attention.

IF SWALLOWED: Call a doctor or get medical attention. Do not induce vomiting. Do not give anything by mouth to an unconscious person. Avoid alcohol.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

See Additional Precautionary Statements Inside.
AMERICAN CYANAMID COMPANY
AGRICULTURAL PRODUCTS DIVISION
CROP PROTECTION CHEMICALS DEPARTMENT
WAYNE, NJ 07470 ©1995

Net Contents:

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ACCEPTED
~~with COMMENTS~~
In EPA Letter Dated

MAY 17 1996

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

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**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
DANGER/PELIGRO!**

Corrosive: Causes irreversible eye damage and skin irritation. Harmful if swallowed or absorbed through skin. DO NOT get in eyes, on skin or on clothing.

Personal Protective Equipment (PPE):

Some materials that are chemical-resistant to this product are listed below. If you want more options follow the instructions for category E and F on an EPA chemical resistance category selection.

Applicators and other handlers must wear:

- * Coveralls over short-sleeved shirt and short pants.
- * Chemical-resistant gloves such as barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils or viton ≥ 14 mils.
- * Chemical-resistant footwear plus socks.
- * Protective eyewear
- * Chemical-resistant headgear for overhead exposure.
- * Chemical-resistant apron when cleaning equipment, mixing, or loading.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. DO NOT reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations:

Users should:

- * Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- * Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- * Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This product is toxic to fish. DO NOT apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent aquatic sites. DO NOT contaminate water when disposing of equipment washwaters.

DIRECTIONS FOR USE

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

This labeling must be in the possession of the user at the time of pesticide application.

Observe all cautions and limitations in this leaflet and on the labels of products used in combination with STEEL. Always use in accordance with the more restrictive label restrictions and precautions. Do not use STEEL other than in accordance with the instructions set forth on this label. The use of STEEL not consistent with this label may result in injury to crops. Keep container closed to avoid spills and contamination.

DO NOT apply this product through any type of irrigation system.

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Exception: if the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

Coveralls over short-sleeved shirt and short pants.

Chemical-resistant gloves such as barrier laminate, butyl rubber \geq 14 mils, nitrile rubber \geq 14 mils, neoprene rubber \geq 14 mils or viton \geq 14 mils.

Chemical-resistant footwear plus socks.

Protective eyewear

Chemical-resistant headgear for overhead exposure.

STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal.

STORAGE: DO NOT STORE BELOW 40°F. Store in original containers and keep closed. Store in a cool, dry place.

PESTICIDE DISPOSAL: 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 incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

DISCLAIMER

The label instructions for the use of this product reflect the opinion of experts based on research and field use. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the use of, or application of the product contrary to label instructions, all of which are beyond the control of American Cyanamid Company. All such risks shall be assumed by the user.

American Cyanamid Company shall not be responsible for losses or damages resulting from use of this product in any manner not set forth on this label. User assumes all risks associated with the use of this product in any manner not specifically set forth on this label.

American Cyanamid Company warrants only that the material contained herein conforms to the chemical description on the label and is reasonably fit for the use therein described when used in accordance with the directions for use, subject to the risks referred to above. **CYANAMID DOES NOT MAKE OR AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE ANY OTHER WARRANTIES, EXPRESS OR IMPLIED AND EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

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BUYER'S EXCLUSIVE REMEDY AND AMERICAN CYANAMID'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF STEEL. In no case shall Cyanamid or the seller be liable for consequential, special or indirect damages resulting from the use or handling of this product.

USES WITH OTHER PRODUCTS (TANK-MIXES)

If this product is used in combination with any other product except as specifically recommended in writing by American Cyanamid Company then American Cyanamid Company shall have no liability for any loss, damage or injury arising out of its use in any such combination not so specifically recommended. If used in combination recommended by American Cyanamid Company, the liability of American Cyanamid Company shall in no manner extend to any damage, loss or injury not directly caused by the inclusion of the American Cyanamid Company product in such combination use, and in any event shall be limited to return of the account of the purchase price of the American Cyanamid Company product.

GENERAL INFORMATION

For broad-spectrum control of grass and broadleaf weeds in soybeans, STEEL may be applied as a preplant incorporated or preemergence treatment.

After STEEL is applied, some susceptible weeds emerge, growth stops, and then the weeds either die or are not competitive with the crop.

A timely cultivation may aid in the control of certain weeds or improve general weed control when adequate moisture is not received after application. Cultivation should be shallow.

STEEL reaches the growing points of susceptible weeds either by direct contact in the soil, or by root uptake and rapid translocation to the growing points. Therefore, adequate soil moisture is important for optimum STEEL activity. The amount of rainfall or irrigation required following application depends on existing soil moisture, soil texture and organic matter content. Sufficient water to moisten the soil to a depth of 2 inches is normally adequate. If adequate moisture is not received within 7 days after treatment, then a cultivation or postemergence herbicide application may be needed to improve weed control. When adequate moisture is received after dry conditions, STEEL will provide residual control of susceptible germinating weeds; activity on established weeds will depend on the weed species and the location of its root system in the soil.

Occasionally, internode shortening of soybean plants may be observed with STEEL applications. This has no effect on soybean yields.

Naturally occurring biotypes* of some of the weeds listed on this label may not be effectively controlled by this and/or other products with either the ALS/AHAS enzyme inhibiting mode of action or the mitotic inhibiting mode of action. Other herbicides with the ALS/AHAS enzyme inhibiting mode of action include the sulfonylureas (e.g., Accent⁴, Basis⁴, Classic⁴, Concert⁴, Exceed⁵, Permit², Pinnacle⁴, etc.), the sulfonamides (e.g., Broadstrike⁶, etc.) and the pyrimidyl benzoates (e.g., Staple⁴, etc.). Herbicides with the mitotic inhibiting mode of action include the other dinitroaniline herbicides such as Prowl[®] 3.3EC, Treflan⁶, Tri-4[®]HF and Sonolan⁶. If naturally occurring biotypes are present in a field which are resistant to one of the herbicides in this premix and are not controlled by the other mode of action herbicide in this premix, Steel should be tank-mixed or applied sequentially with an appropriate registered herbicide having a different mode of action to ensure control.

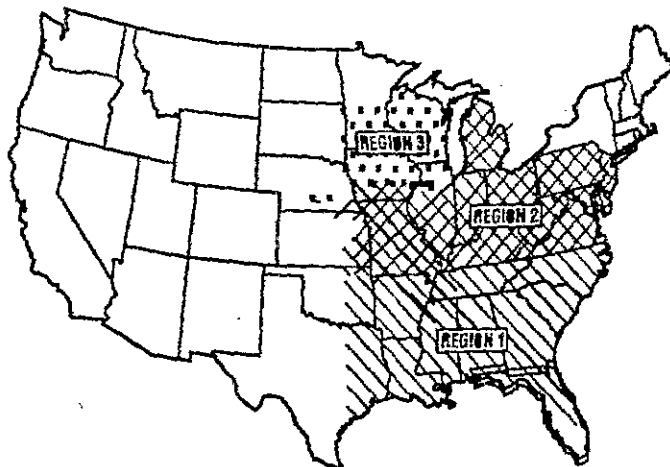
* A weed biotype is a naturally occurring plant within a given species that has a slightly different, but distinct, genetic makeup from other plants.

See your Cyanamid representative for addition information.

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USE AREA

STEEL can be applied only in the states or parts of states shaded in the shaded areas of Use Regions 2 and 3 in the following map.



The use area for STEEL is defined by the following USE REGIONS and can be applied only in the states or parts of states listed below:

Use Region 2 includes eastern Kansas (east of U.S. 81; the counties of Cloud, Ellsworth, Harvey, Jewell, Lincoln, Mitchell, McPherson, Ottawa, Republic, Saline, Sedgewick, and Sumner), southeastern Nebraska (east of U.S. 81, south of U.S. 34), Missouri, Illinois (south of S.R. 116 west of Peoria; south of U.S. 24 east of Peoria), Indiana, Ohio, Michigan, Kentucky, Virginia, West Virginia, Pennsylvania, Maryland, Delaware, and New Jersey. Iowa in the counties of Mills, Fremont, Montgomery, Page, Adams, Taylor, Union, Ringgold, Clarke, Decatur, Lucas, Wayne, Monroe, Appanoose, Wapello, Davis, Jefferson, Van Buren, Henry, Lee, and Des Moines.

Use Region 3 includes Nebraska (east of U.S. 81, north of U.S. 34 and also that area east of U.S. 283, south of U.S. 30, and west of U.S. 81), South Dakota (east of U.S. 81), Illinois (north of S.R. 116 west of Peoria; north of U.S. 24 east of Peoria), Wisconsin, Iowa (counties other than those listed in Use Region 2), and Minnesota (south of S.R. 210).

Note: See the ROTATIONAL CROP RESTRICTIONS section for recommendations applying to each USE REGION.

WEEDS CONTROLLED

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When applied as directed, STEEL will control or reduce competition from the weeds listed below.

BROADLEAF WEEDS

WEEDS CONTROLLED	LEVEL OF CONTROL
Anoda, spurred	Control
Buffalobur	Control
Burcucumber	Control ¹
Carpetweed	Control
Cocklebur, common	Control
Galinsoga	Control
Jimsonweed	Control ²
Kochia	Control
Lambquarters, common	Control
Mallow, Venice	Control
Marshelder	Control
Morningglory	
entireleaf	Suppression
ivyleaf	Suppression
pitted	Suppression
smallflower	Control
tall	Suppression
Mustard species	Control
Nightshade	
black	Control
Eastern black	Control
hairy	Control
Pigweed	
palmer	Control
redroot	Control
smooth	Control
spiny	Control
Waterhemp sp.	Control ³
Poinsettia, wild	Control
Puncturevine	Control
Purslane, common	Control
Pusley, Florida	Control
Ragweed,	
common	Control
giant	Control ¹
Sage, barnyard	Suppression
Sida, prickly (teaweed)	Control ¹
Smartweed	
ladysthumb	Control
Pennsylvania	Control
Spurge	
prostrate	Control
spotted	Control
Sunflower	Control ²
Texasweed	Suppression
Velvetleaf	Control

GRASS WEEDS

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<u>WEEDS CONTROLLED</u>	<u>LEVEL OF CONTROL</u>
Barnyardgrass	Control
Corn, volunteer	Suppression ⁴
Crabgrass	
large	Control
smooth	Control
Crowfootgrass	Control
Cupgrass, woolly	Control
Foxtail	
giant	Control
green	Control
yellow	Control
Goosegrass	Suppression
Johnsongrass	
seedling	Control
Millet, wild proso	Suppression
Panicum	
browntop	Control
fall	Control
Texas	Control
Sandbur, field	Control
Shattercane	Suppression
Signalgrass, broadleaf	Control
Sorghum alnum	Suppression
Witchgrass	Control

SEDGES

<u>WEEDS CONTROLLED</u>	<u>LEVEL OF CONTROL</u>
Nutsedge	
yellow	Suppression

¹ Cultivation and/or a postemergence herbicide may be required for season-long control.

² To obtain consistent control or suppression of these weeds under a wide range of environmental conditions, a preplant incorporated application is required. See STEEL plus Additional PROWL[®] 3.3EC herbicide section for directions regarding woolly cupgrass and shattercane.

³ If a heavy infestation of waterhemp sp. is anticipated a tank mix of STEEL plus additional PROWL[®] 3.3EC is required for control. For coarse textured soils add PROWL 3.3EC at 0.4 pints/acre to the STEEL mix, for medium textured soils add PROWL 3.3EC at 1 to 1.6 pints/acre to the STEEL mix, and for fine textured soils add PROWL 3.3EC at 1.6 pints/acre to the STEEL mix. Refer to the PROWL 3.3EC label for specific use rates, application methods and application timings based on soil texture and soil organic matter content. A postemergence application of a diphenylether herbicide may be needed to control waterhemp sp. escapes. Examples of diphenylether herbicides are Blazer⁶, Cobra⁷ and Reflex². Refer to individual product labels for specific uses and recommendations.

⁴ A soil application of STEEL will suppress only those field corn hybrids which DO NOT possess tolerance or resistance to STEEL or other imidazolinone herbicides (i.e. PURSUIT[®]).

DIRECTIONS FOR CONVENTIONAL, MINIMUM, AND NO-TILL APPLICATIONS

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USE RATE

STEEL: 3 pints/acre

Apply STEEL at a broadcast rate of 3 pints per acre plant incorporated and preemergence (including minimum and no-till systems) applications. At this broadcast rate, one gallon of STEEL will treat 2.67 acres of soybeans.

MIXING INSTRUCTIONS

When water is used as the carrier, first fill the spray tank one-fourth to one-half full with clean water. While agitating, add the required amount of STEEL. Fill the remainder of the tank with clean water. An antifoaming agent may be added to the tank if needed. Maintain agitation while spraying to ensure a uniform spray mixture.

When tank-mixing STEEL with recommended herbicides, add the other herbicides and adjuvants in the following order while agitating. Thoroughly mix each ingredient before adding the next ingredient.

1. Fill spray tank 1/4 to 1/2 full with clean water.
2. Add soluble packet products and thoroughly mix.
3. Add WP (wetttable powder), DG (dispersible granule), DF (dry flowable) or LF (liquid flowable) formulations.
4. Add aqueous solution products.
5. Add STEEL.
6. Add other EC (emulsifiable concentrate) products.
7. Add surfactant to the spray tank.
8. Add liquid fertilizer.
9. While agitating, fill the remainder of the tank with water.

When paraquat is included in a tank-mixture, add 8 ounces of non-ionic surfactant per 100 gallons of spray mixture as the last ingredient in the tank.

To avoid injury to sensitive crops, spray equipment used for STEEL applications must be drained and thoroughly cleaned with water before being used to apply other products.

SPRAYING INSTRUCTIONS

By ground, uniformly apply with properly calibrated ground equipment in 10 or more gallons of water per acre.

By air, uniformly apply with properly calibrated air equipment in 5 or more gallons of water per acre.

DO NOT apply when wind velocity is greater than 10 mph, or when spray may be carried to sensitive crops. Sensitive crops include leafy vegetables, sugarbeets, and cotton.

Avoid overlaps when spraying.

GROUND APPLICATIONS:

Uniformly apply with properly calibrated ground equipment in 10 to 40 gallons of water, or 20 or more gallons of liquid fertilizer per acre. Use higher gallonage for fields with dense vegetation or heavy crop residues. A spray pressure of 20 to 40 psi is recommended.

DO NOT apply with ground equipment when wind velocity is greater than 10 mph.

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AERIAL APPLICATIONS:

Uniformly apply with properly calibrated aerial equipment in 5 or more gallons of water per acre.

To avoid injury to sensitive crops from drift, aerial application must adhere to the following SPECIAL AERIAL USE DIRECTIONS AND PRECAUTIONS:

- Use nozzles which produce a coarse spray.
- Nozzle height above ground must be a maximum of 10 feet.
- Nozzles must be pointed toward the rear of the aircraft. The downward angle of the nozzle should not be greater than 20 degrees.
- To minimize wing-tip vortex roll, nozzles or spray boom must not be located any closer to end of wing or rotor than three-fourths the distance from the center of the aircraft.
- Use a maximum spray pressure of 40 psi.
- A buffer zone must be established between the area to be sprayed and sensitive crops.
- DO NOT spray when wind velocity is greater than 5 mph.

Applicator is responsible for any loss or damage which results from spraying STEEL in a manner other than recommended in this label. In addition, applicator must follow all applicable state and local regulations and ordinances in regard to spraying.

APPLICATIONS WITH FERTILIZERS

APPLICATIONS WITH LIQUID FERTILIZERS

STEEL can be applied with liquid fertilizers, alone or in combination with PROWL 3.3EC. Follow all STEEL label recommendations regarding incorporation, timing of application, special instructions and precautions. For other STEEL tank mix partners, refer to the individual product labels for specific recommendations for using these products with liquid fertilizers. Apply treatments in 20 or more gallons of liquid fertilizer per acre with ground equipment. Maintain continuous agitation in the spray tank to prevent separation. Use only flood nozzles with no nozzle screens to prevent clogging.

All individual state regulations relating to fluid fertilizer mixing, registration, labeling and application are the responsibility of the individual and/or company selling the STEEL/liquid fertilizer mixture.

LIQUID FERTILIZER COMPATIBILITY DETERMINATIONS

If a liquid fertilizer and herbicide(s) mixture separates in the spray tank, clogged equipment and uneven application can result, which can cause poor weed control and crop injury. Always predetermine the compatibility of STEEL alone or with PROWL 3.3EC in the specific liquid fertilizer to be used according to the following directions:

1. Add 1 pint of fertilizer to each of 2 one-quart jars.
2. Add 1/2 teaspoon of adjuvant* to one jar.
3. (a) When using STEEL alone, add to each jar the correct amount of STEEL as specified in the table below.
(b) When using STEEL plus PROWL 3.3EC, first add the specified quantity of STEEL, then add the correct amount of PROWL 3.3EC.
4. Close both jars and shake thoroughly for 10 seconds. Let them stand for 30 minutes and then observe the results. Look for signs of separation, an oily layer or globules, sludge, flakes or other precipitates.

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5. Determine compatibility:

- (a) If the mixture without adjuvant does not separate, use this mixture in your spray tank.
- (b) If the mixture with adjuvant does not separate, but the one without adjuvant separates, use the adjuvant mixture in your spray tank. Add the adjuvant to the liquid fertilizer as directed on the manufacturer's label.
- (c) If either mixture separates, but mixes readily with shaking, the mixture can be used providing good agitation is maintained in the spray tank.
- (d) If separation of the mixture occurs, and agitation and/or adjuvant does not correct the problem, DO NOT use the herbicide(s) in that specific liquid fertilizer.

*Complex: Kalo Laboratories Inc., Kansas City, MO; Sponto 168D: Witco Chemical Co., Houston, TX;
Unite: Hopkins Agricultural Chemical Co., Madison, WI; or other comparable adjuvants.

**Teaspoons of Specified Herbicide to be Added
to 1 Pint of Liquid Fertilizer Solution**

Gallons of Liquid Fertilizer to be Applied per Acre	PROWL 3.3EC	STEEL
20	1	2
30	2/3	1 1/2
40	1/2	1

APPLICATIONS WITH DRY BULK FERTILIZERS

STEEL may be impregnated on dry bulk fertilizers. When applied as directed, STEEL/dry bulk fertilizer mixtures provide weed control equal to that provided by the same rates of STEEL applied in water or liquid fertilizer.

Apply STEEL/dry bulk fertilizer mixtures only with ground equipment.

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 STEEL/dry bulk fertilizer mixture.

A minimum of 200 pounds and a maximum of 450 pounds of dry bulk fertilizer impregnated with the recommended amount of STEEL must be applied per acre.

DO NOT impregnate STEEL onto coated ammonium nitrate or limestone because these materials will not absorb the herbicide. Dry fertilizer blends containing mixtures of ammonium nitrate or limestone may be impregnated with STEEL. A minimum of 200 pounds of impregnated dry bulk fertilizer, excluding the weight of ammonium nitrate or limestone, must be applied per acre.

Apply STEEL at the rate of 3 pints per acre. Use the following table to determine the amount of STEEL to be impregnated on a ton of dry bulk fertilizer based on the rate of fertilizer which will be applied per acre

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**RATE CHART FOR IMPREGNATION OF DRY
BULK FERTILIZER WITH STEEL**

(Pints of STEEL per Ton of Fertilizer)

STEEL Rate Per Acre	Fertilizer Rate lbs/acre	Pints of STEEL Per Ton of fertilizer
3 Pints	200	30
	250	24
	300	20
	350	17
	400	15
	450	13 1/3

For those rates not listed in this table, calculate the pints of STEEL to be impregnated on a ton of dry bulk fertilizer using the following formula:

$$\frac{2000}{\text{Pounds of dry fertilizer per acre}} \times \begin{matrix} 3 \text{ pints of} \\ \text{STEEL per acre} \\ \text{(recommended rate)} \end{matrix} = \begin{matrix} \text{Pints of} \\ \text{STEEL per ton} \\ \text{of fertilizer} \end{matrix}$$

To impregnate STEEL on bulk fertilizer, use a closed rotary-drum mixer or other commonly used dry bulk fertilizer blender equipped with suitable spray equipment. Spray nozzles must be placed to provide uniform coverage of STEEL onto the fertilizer during mixing.

If PROWL 3.3EC is to be combined with the STEEL prior to impregnation, premix the PROWL 3.3EC with an equal volume of water before adding it to the STEEL. DO NOT mix undiluted PROWL 3.3EC with STEEL.

Apply the STEEL/dry bulk fertilizer mixture with an accurately calibrated dry fertilizer spreader. The STEEL/dry bulk fertilizer mixture must be spread uniformly on the soil surface. Uneven spreading can cause poor weed control and crop injury.

APPLICATION INSTRUCTIONS

STEEL may be applied in conventional, minimum, or no-till soybeans as a preplant incorporated or preemergence application up to 45 days before planting. Preemergence applications may be also applied during or after planting but before the crop emerges. DO NOT apply postemergence (or at cracking) to soybeans.

Adequate soil moisture is required for activation of STEEL

PREPLANT INCORPORATED APPLICATIONS

Apply STEEL before planting and incorporate uniformly into the top 1 to 2 inches of soil. STEEL may be applied immediately before planting or up to 45 days prior to planting in USE REGION 2 and USE REGION 3. Incorporate within 7 days after application.

If soybeans are planted on beds, apply and incorporate after bed formation using PTO-driven equipment or rolling cultivator.

PREEMERGENCE APPLICATIONS (including no-till)

Apply STEEL up to 45 days (USE REGIONS 2 AND 3) before, during or after planting before the crop emerges. As with other herbicides applied preemergence, rainfall or irrigation is necessary to activate STEEL in the soil. If sufficient rainfall or irrigation to activate STEEL is not received within 7 days after application, a thorough shallow tillage, cultivation, or postemergence treatment (as appropriate to the tillage system) may be required for control of emerged weeds.

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For no-till uses, STEEL may be applied prior to, in tank mix with, or following the use of either Gramoxone Extra⁵, Roundup¹, 2,4-D, or 2,4-DB to kill existing vegetation. Gramoxone Extra, Roundup, 2,4-D or 2,4-DB should be deleted from the tank mixture if vegetation is absent at the time of application. Use a minimum of 10 gallons of water per acre. Use higher gallonage for fields with dense vegetation or heavy crop residues. Use ground equipment only. Plant soybeans at least one inch deep and adjust planters to ensure adequate seed coverage.

STEEL may be followed by postemergence applications of one of the following herbicides: Basagran⁶, Blazer⁶, Galaxy⁶, Storm⁶, Cobra⁷, Reflex² or Roundup (applications to Roundup Ready¹ [glyphosate resistant] soybeans only). For sequential treatments, a sufficient time period should occur between treatments to allow an appropriate assessment of weed control needs.

STEEL may be followed by herbicides registered for postemergence grass control in soybeans.

When used in combination with another herbicide, STEEL should be used only in accordance with recommendations on this label. Always follow the more restrictive label limitations and precautions. STEEL cannot be mixed with any product containing a label prohibition against such mixing.

SURFACE APPLICATIONS MADE AFTER PLANTING:

STEEL may be surface applied prior to soybean planting both North and South of Highway I-80.

STEEL may be surface applied up to 2 days after soybean planting (before crop emergence) South of Interstate Highway I-80 only. DO NOT APPLY STEEL AFTER SOYBEAN PLANTING North of Interstate Highway I-80, except as specified in other supplemental Cyanamid labeling. Do not apply STEEL preemergence in South Dakota.

HERBICIDE COMBINATIONS

For no-till uses, STEEL may be tank mixed with Gramoxone Extra, Roundup, 2,4-D or 2,4-DB to kill existing vegetation. Use a minimum of 10 gallons of water per acre. Use higher gallonage for fields with dense vegetation or heavy crop residues. Use ground equipment only. Plant soybeans at least one inch deep and adjust planters to ensure adequate seed coverage.

STEEL must be used only in accordance with the directions on this label. Do not use STEEL in any tank mixes other than those specifically provided in this label. Always follow the more restrictive label limitations and precautions.

In addition to those broadleaf herbicides specifically mentioned elsewhere in this label, STEEL applications may be followed by one or more of the following herbicides: Basagran, Blazer, Galaxy, Storm, Cobra, or Reflex.

Soil Texture

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The application rate of some herbicides which may be tank mixed with STEEL will vary with soil texture. Combination rate tables in this label refer to three soil texture groups: COARSE, MEDIUM, and FINE. The following table lists soil textures included in each of these three groups:

<u>COARSE</u>	<u>MEDIUM</u>	<u>FINE</u>
sands	sandy clay loams *	silty clay loams *
loamy sands	sandy clays	silty clays
sandy loams	loams	clay loams
	silt loams	clays
	silts	

* Sometimes considered transitional soils.

STEEL Plus Additional PROWL 3.3EC Herbicide Tank Mixture

PROWL 3.3EC can be tank mixed with STEEL and applied preplant incorporated or preemergence if heavy or difficult to control infestations are anticipated from broadleaf and grass weeds listed in this leaflet. STEEL plus PROWL 3.3EC must be applied preplant incorporated if shattercane or woolly cupgrass infestations are anticipated. Refer to the PROWL 3.3EC label "Soybean Special Weeds" section for specific use rates, application methods and application timings based on soil texture and soil organic matter content.

Apply this tank mixture preplant incorporated north of Interstate 80.

Observe all precautions and limitations on the PROWL 3.3EC label.

PROWL 3.3EC rates are based on 3.3 pounds of active ingredient per gallon.

Tank Mixtures with 2,4-D

2,4-D may be used with STEEL alone or in combination with other STEEL tank mixes prior to planting for control of some annual broadleaf weeds. Use the following rates of 2,4-D in tank mixtures with STEEL:

<u>2,4-D Formulation</u>	<u>Rate(lb a.i./A)</u>	<u>Minimum Days Before Planting</u>
Ester	0.5	7
Amine	0.5	15
Ester or Amine	1.0	30

Refer to 2,4-D label for weeds controlled. Observe all cautions and limitations on the 2,4-D label.

Tank Mixtures with 2,4-DB

2,4-DB may be used with STEEL alone or in combination with other STEEL tank mixes for control of some annual broadleaf weeds. Refer to the 2,4-DB label for specific use recommendations, rates and weeds controlled.

Observe all cautions and limitations on the 2,4-DB label.

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Tank Mixtures with Roundup

Roundup may be used with STEEL alone or in combination with other tank mixes for the control of certain emerged grasses and broadleaf weeds. Refer to the Roundup label for specific use recommendations, rates and weeds controlled.

NOTE: The Roundup rate for tank mixes with STEEL is the same as the rate for Roundup used alone.

Observe all cautions and limitations on the Roundup label.

Tank Mixtures with Gramoxone Extra

Gramoxone Extra, at 1 1/2 to 2 1/2 pints per acre, may be used with STEEL alone or in combination with other tank mixes for the control of certain emerged grasses and broadleaf weeds. Use the 2-1/2 pint rate if weeds are 4 to 6 inches tall. Weeds over 6 inches may not be controlled with this treatment. Apply up to 14 days before, during or immediately after planting.

When Gramoxone Extra is included in a tank mixture, add a nonionic spreader surfactant at a rate of 8 fl. oz. per 100 gallons of spray mixture as the last ingredient in the tank.

Gramoxone Extra will control most annual emerged weeds and suppress many emerged perennials. Refer to the Gramoxone Extra label for specific use recommendations and weeds controlled.

Observe all precautions and limitations on Gramoxone Extra label.

ROTATIONAL CROP GUIDELINES

The following rotational crops may be planted after applying STEEL in soybeans:

CROP	USE REGION 2	USE REGION 3
Soybeans	No restrictions	No restrictions
Alfalfa	18 months	18 months
Wheat	4 months	18 months ¹
Barley	11 months	18 months
Field Corn (non IMI-Corn ^{1,2,3})	9.5 months	18 months ^{3,4}
IMI-Corn ³	9.5 months	9.5 months
Pop Corn	18 months	26 months
Seed Corn ⁵	18 months	26 months
Sweet Corn	18 months	26 months
Edible Beans	11 months	11 months
Grain Sorghum	18 months	18 months
Oats	18 months	18 months
Tobacco	11 months	11 months
Potatoes	26 months	26 months
Sugar Beets or Red Table Beets ⁶	40 months	40 months
All crops not listed elsewhere in the CROP ROTATION GUIDELINE ⁶	40 months	40 months

¹ In Nebraska, east of U.S. 283, south of U.S. 30, and west of U.S. 81; wheat may be planted 4 months after a STEEL application.

- 2 For USE REGION 2 (including Michigan) as defined in the USE AREA section of this label, field corn (non-resistant) may be planted as a rotational crop in the spring of the year following STEEL application unless extreme drought conditions develop (less than 15 inches of rainfall or irrigation is received from two weeks prior to the date of STEEL application through November 15 of the same year).

If the minimum rainfall requirement is not met, only field corn hybrids (IMI-Corn)³ which possess tolerance or resistance to STEEL and other imidazolinone herbicides may be planted the spring of the year following a STEEL application.

- 3 Contact your chemical dealer, seed supplier, or American Cyanamid to obtain information regarding the availability of imidazolinone tolerant field corn hybrids which are adapted to your area.
- 4 For USE REGION 3 as defined in the USE AREA section of this label, field corn (non-resistant) may be planted as a rotational crop 18 months following the application of STEEL unless extreme drought conditions develop (less than 15 inches of rainfall or irrigation is received from two weeks prior to the date of STEEL application through November 15 of the same year).

If the minimum rainfall requirement is not met, only field corn hybrids (IMI-Corn)³ which possess tolerance or resistance to STEEL and other imidazolinone herbicides may be planted the spring of the year following the 18 month crop rotation period.

- 5 Several seed companies have tested a wide range of inbreds for sensitivity to STEEL soil residues and have reported good crop safety. However, due to the proprietary nature of seed production, American Cyanamid has not been given access to the inbred data. Growers are directed to contact the seed company for information and recommendations regarding the planting of corn grown for seed in fields treated with STEEL. Since growing conditions, environmental conditions and grower practices are beyond the control of American Cyanamid Company, all risks and consequences associated with planting seed corn inbreds into fields treated previously with STEEL shall be assumed by the user.
- 6 Following 40 months after a STEEL application, and before planting sugar beets, red table beets, or any crop not listed elsewhere in the ROTATIONAL CROP GUIDELINES, a successful field bioassay must be completed. The field bioassay consists of a test strip of sugar beets (or the other intended rotational crop) planted across the previously treated field and grown to maturity. The test strip should include low areas and knolls, and include variations in soil such as type and pH. If no crop injury is evident in the test strip, sugar beets (or the other intended rotational crop) may be planted the following year.

If the field is limed to adjust soil pH prior to planting sugar beets (or other rotational crops not listed in the ROTATIONAL CROP GUIDELINES), apply the lime at least 12 months prior to planting.

Use of STEEL in accordance with label directions is expected to result in normal growth of rotational crops in most situations; however, various environmental and agronomic factors make it impossible to eliminate all risks associated with use of this product and, therefore, rotational crop injury is always possible.

PRECAUTIONS

DO NOT use STEEL other than in accordance with the instructions set forth on this label.

DO NOT apply STEEL postemergence to soybeans as crop injury may occur.

DO NOT APPLY STEEL OR ITS TANK MIXTURES PREEMERGENCE IN SOUTH DAKOTA.

DO NOT use STEEL in any tank mixes other than those specifically provided in this label.

DO NOT use on crops other than soybeans. Crops other than soybeans, such as cotton, corn, grain sorghum, rice and vegetables, may be injured by spray drift or other indirect contact with STEEL.

To avoid injury to sensitive crops from spray drift, follow all use directions and precautions in SPRAYING INSTRUCTIONS section.

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- To avoid injury to sensitive crops, spray equipment used for STEEL applications must be drained and thoroughly cleaned with water before being used to apply other products to these crops.

Apply STEEL prior to July 1 in USE REGION 3, as defined in the USE AREA section of this label.

Use of STEEL in accordance with label directions is expected to result in normal growth of rotational crops in most situations; however, various environmental and agronomic factors make it impossible to eliminate all risks associated with use of this product and, therefore, rotational crop injury is always possible. For specific recommendations see the ROTATIONAL CROP GUIDELINES.

Replanting: If replanting is necessary in a field previously treated with STEEL, the field may be replanted to soybeans. Rework the soil no deeper than the treated zone. DO NOT APPLY A SECOND TREATMENT OF STEEL.

Only rotational crops harvested at maturity may be used for feed or food.

In the event of a crop loss due to weather, soybeans can be replanted. DO NOT work the soil deeper than 2 inches.

If soybeans are furrow irrigated, till the soil prior to planting winter wheat or barley. The beds should be broken up and the soil mixed with tillage equipment set to cut 4-6 inches deep.

There should be an interval of at least 90 days between an application of STEEL and soybean harvest.

DO NOT graze or feed treated soybean forage, hay or straw to livestock.

Except where otherwise stated on a STEEL Supplemental label, DO NOT apply products containing chlorimuron ethyl (Classic³, Canopy³, Gemini³, Lorox Plus³, Preview³, Concert³, Pinnacle³, Synchrony³, etc.) or imazaquin (DETAILTM, SCEPTER[®], STEELTM, or TRI-SCEPT[®], SCEPTER[®] O.T.[®], or SCEPTER[®] 70DG,) or products containing imazethapyr (PURSUIT[®], PURSUIT[®]DG, PURSUIT[®] PLUS EC or PASSPORT[®], CONTOUR[®] or RESOLVE[®]), or flumetsulam (e.g. Broadstrike⁴) the same year as STEEL or injury to follow crops may occur.

For additional information regarding the use of STEEL, call telephone no. 800-942-0500.

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¹ Trademarks of Monsanto Agricultural Products Co.

² Trademarks of Zeneca Inc.

³ Trademarks of E.I. du Pont de Nemours and Company.

⁴ Trademarks of Ciba Geigy Corporation.

⁵ Trademarks of DowElanco Company.

⁶ Trademarks of BASF Corporation.

⁷ Trademarks of Valent Corporation.

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WEED SCIENTIFIC NAMES

GRASSES

Barnyardgrass	(<i>Echinochloa crus-galli</i>)
Corn, volunteer	(<i>Zea mays</i>)
Crabgrass	(<i>Digitaria spp.</i>)
Crowfootgrass	(<i>Dactyloctenium aegyptium</i>)
Cupgrass, Woolly	(<i>Eriochloa villosa</i>)
Foxtail	
Giant	(<i>Setaria faberi</i>)
Green	(<i>Setaria viridis</i>)
Robust	(<i>Setaria spp.</i>)
Yellow	(<i>Setaria glauca</i>)
Goosegrass	(<i>Eleusine indica</i>)
Johnsongrass, seedling	(<i>Sorghum halepense</i>)
Panicum	
Browntop	(<i>Panicum fasciculatum</i>)
Fall	(<i>Panicum dichotomiflorum</i>)
Texas	(<i>Panicum texanum</i>)
Sandbur, Field	(<i>Cenchrus incertus</i>)
Shattercane	(<i>Sorghum bicolor</i>)
Signalgrass, Broadleaf	(<i>Brachiaria platyphylla</i>)
Witchgrass	(<i>Panicum capillare</i>)

BROADLEAF WEEDS

Alligatorweed	(<i>Alternanthera philoxeroides</i>)
Beggarweed, Florida	(<i>Desmodium tortuosum</i>)
Bristly Starbur	(<i>Acanthospermum hispidum</i>)
Burcucumber	(<i>Sicyos angulatus</i>)
Carpetweed	(<i>Mollugo verticillata</i>)
Cocklebur, Common	(<i>Xanthium strumarium</i>)
Copperleaf, hophornbeam	(<i>Acalypha ostryifolia</i>)
Jimsonweed	(<i>Datura stramonium</i>)
Kochia	(<i>Kochia scoparia</i>)
Lambsquarters, Common	(<i>Chenopodium album</i>)
Mallow, Venice	(<i>Hibiscus trionum</i>)
Mexicanweed	(<i>Caperonia castanifolia</i>)
Morningglory	
Entireleaf	(<i>Ipomoea hederacea</i> var. <i>intergriuscula</i>)
Ivyleaf	(<i>Ipomoea hederacea</i>)
Palm Leaf	(<i>Ipomoea wrightii</i>)
Pitted	(<i>Ipomoea lacunosa</i>)
Smallflower	(<i>Jacquemontia tamnifolia</i>)
Tall	(<i>Ipomoea purpurea</i>)
Mustard Species	(<i>Brassica spp.</i>)
Nightshade, Eastern Black	(<i>Solanum ptycanthum</i>)

Pigweed	
Palmer	(<i>Amaranthus palmeri</i>)
Redroot	(<i>Amaranthus retroflexus</i>)
Smooth	(<i>Amaranthus hybridus</i>)
Spiny	(<i>Amaranthus spinosus</i>)
Waterhemp, Tall	(<i>Amaranthus tuberculatus</i>)