

8033-12

08/08/2001

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U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Registration Division 1750B-7  
401 "M" St., S.W.  
Washington, D.C. 20460

EPA Reg. Number:  
8033-12

ACC of Issuance:  
8-2001

Term of Issuance:  
Conditional

Name of Pesticide Product:  
Equinox Herbicide

NOTICE OF PESTICIDE:  
  X   Registration  
       Reregistration

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Nippon Soda Co, Ltd  
c/o Nisso American Inc.  
220 E. 42<sup>nd</sup> Street, Suite 3002  
New York, NY 10017

**Note:** Changes in labeling 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 EPA registration number.

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.

Registration is in no way to be construed as an endorsement or recommendation of this product by the 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.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(C) provided that you:

1. If necessary you will submit all data required for registration/reregistration of your product when the Agency requires all registrants of similar products to submit such data.
2. You will submit production information (pounds or gallons) produced for this product for the fiscal year in which the product is conditionally registered, in accordance with FIFRA Section 29. The fiscal year begins October 1 and ends September 30. The production information will be submitted to the Agency no later than November 15, following the end of the preceding fiscal year.

This information should be submitted to:

U.S. Environmental Protection Agency  
Office of Pesticides Program (7504C)  
Document Processing Desk  
1200 Pennsylvania Avenue NW  
Washington, DC 20460

3. Make the following label changes before you release the product for shipment.

a. Add the phrase "EPA Registration No. 8033-12" to your label before you release the product for shipment.

Signature of Approving Official:

Date:

8-8-01

b. Incorporate the following statement into your precautionary statements.

-- Wash thoroughly with soap and water after handling.--

c. Change the heading "Statement of Practical Treatment" to read "First Aid" as directed in PR Notice 2001-1.

d. Revise your First Aid Statement to read as directed in PR Notice 2001-1.

e. On page 3 under "Rotational Cropping" revise the sentence "Other crops may be planted 50 days after applicaiton of Equinox." to read "Other crops may be replanted 260 days after applications of Equinox."

4. Submit three (3) copies of your final printed labeling before yor release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA Section 6(e).

A stamped copy of labeling is enclosed for your records.

# Equinox<sup>TM</sup>

## herbicide

For control of grasses in canola, cotton, fallow, non-cropland and soybeans

**Active Ingredient:**

Tepraloxydim (proposed): [(EZ)-(RS)-2-{1-[(2E)-3-chloroallyloxyimino]propyl}-3-hydroxy-5-perhydropyran-4-ylcyclohex-2-en-1-one].....\*19.4%

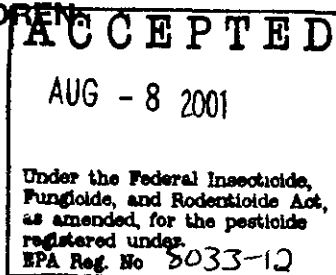
**Inert Ingredients**.....80.6%

**Total**.....100.0%

\* Equivalent to 1.67 pounds of tepraloxydim per gallon

EPA Reg. No. 8033-

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION**



See the attached booklet for complete **Precautionary Statements, Statements of Practical Treatment, Directions For Use, and Conditions of Sale and Warranty.**

**Net contents:**

**Manufactured by:**  
Nisso BASF Agro Co., Ltd.  
c/o Nisso America, Inc.  
New York, NY

## Precautionary Statements

### Hazards to Humans and Domestic Animals

**CAUTION.** Causes moderate eye injury. Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes, or clothing.

### Statement of Practical Treatment

**If in eyes:** Flush with plenty of water. Call a physician if irritation persists.

**If on skin:** Wash with plenty of soap and water. Get medical attention.

**If swallowed:** Promptly drink a large quantity of milk, egg whites, gelatin solution, or, if these are not available, large quantities of water. Avoid alcohol.

### Personal Protective Equipment (PPE)

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

### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate, nitrile rubber  $\geq 14$  mils, neoprene rubber  $\geq 14$  mils, or viton  $\geq 14$  mils
- Shoes plus socks

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.

### Engineering Controls Statement

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### 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

For terrestrial uses, do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

### Groundwater Advisory

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

### Surface Water Advisory

This product may contaminate water through drift or spray in wind. This product has a high potential for runoff for several days after application. Poorly draining soils and soils with shallow water tables are

more prone to produce runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams and springs will reduce the potential for contamination of water from rainfall runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

### Endangered Species Concerns

The use of any pesticide in a manner that may kill or otherwise harm an endangered species or adversely modify their habitat is a violation of federal law.

## Directions For Use

Not for use in California.

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

Unless otherwise directed in supplemental labeling, all applicable directions, restrictions, precautions and **Conditions of Sale and Warranty** are to be followed. This labeling must be in the user's possession during application.

### 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**. 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
- Chemical-resistant gloves such as barrier laminate, nitrile rubber  $\geq 14$  mils, neoprene rubber  $\geq 14$  mils, or viton  $\geq 14$  mils
- Shoes plus socks

### Storage and Disposal

Do not contaminate water, food, or feed by storage or disposal.

**Pesticide Storage:** Do not store below 32° F or above 100° F. Store in a dry place away from heat or open flame. Avoid contamination of feed or foodstuffs.

**Pesticide Disposal:** Pesticide wastes are toxic. Wastes resulting from this product may be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mix, or

rinsate is a violation of federal law. If these wastes cannot be disposed of according to label instructions, contact the state agency responsible for pesticide regulation or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**Container Disposal:**

- **Plastic Containers:** 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.
- **Bulk/Mini-bulk Containers:** Reusable containers should be returned to the point of purchase for cleaning and refilling because the container must be thoroughly cleaned before refilling.

**In Case of Emergency**

In case of large-scale spillage regarding this product, call:

CHEMTREC	800-424-9300
BASF Corporation	800-832-HELP

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment.
- Your local poison control center (hospital).
- BASF Corporation (800-832-HELP)

**Steps to be taken in case material is released or spilled:**

Wear the personal protective equipment specified on the label. Recover the material for re-use according to label whenever possible. Cover the liquid with an absorbent material (such as pet litter). Sweep up and place in an appropriate container for disposal. Remove and wash clothing and personal protective equipment prior to re-use. Keep the spill out of all sewers and open bodies of water.

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**I. General Information**

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**Equinox™ herbicide** is a selective, broad spectrum, postemergence herbicide for use in canola, cotton, fallow, non-cropland and soybeans to control annual and perennial grass weeds. **Equinox** does not control sedges or broadleaf weeds. Essentially, all grass crops, such as sorghum, corn, small grains, and rice, as well as ornamental grasses, such as turf, are susceptible to **Equinox**.

**Mode of Action**

**Equinox** rapidly enters the target weed through its foliage and translocates throughout the plant. The effects range from slowing or stopping growth (generally within 2 days), to foliage reddening and leaf tip burn. Subsequently, foliage burnback may occur. These symptoms will generally be observed within 3 weeks depending on environmental conditions.

**Crop Tolerance**

Cotton and soybeans are tolerant to **Equinox** at all stages of growth. Leaf speckling may occur, but plants generally outgrow this condition within 10 days. New growth is normal and crop vigor is not reduced. Do not apply **Equinox** to canola past the 6-leaf stage or in to the bolting stage as injury may occur.

**Rotational Cropping**

Canola, cotton and soybeans may be planted immediately after application of **Equinox**. Other crops

may be planted 50 days after applications of **Equinox**.

**Herbicide Resistance**

Repeated use of **Equinox** (or similar postemergence grass herbicides with the same mode of action) may lead to the selection of naturally occurring biotypes with resistance to these products. If poor performance cannot be attributed to adverse weather conditions or improper application methods, a resistant biotype may be present. Consult your local representative or agricultural advisor for assistance.

**Cultivation**

Do not cultivate within 5 days before or 7 days after applying **Equinox**. Cultivating 7 days or more after treatment may help provide season-long control.

**Cleaning Spray Equipment**

Clean spray equipment thoroughly using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions before and after applying this product, particularly if a herbicide with the potential to injure crops was used.

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**II. Application Instructions**

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Applications can be made to actively growing weeds as broadcast, band, or spot spray applications at the rates and growth stages listed in **Table 1**.

**Application Rates and Timing**, unless instructed differently by the **Crop Specific Information**. The most effective control will result from making postemergent applications of **Equinox** early, when weeds are small. Delaying application permits weeds to exceed the maximum size stated and will prevent adequate control.

Apply **Equinox** to the foliage of grasses on a spray-to-wet basis uniformly and completely because large leaf canopies shelter smaller weeds and can prevent adequate spray coverage. Do not spray to the point of runoff.

In irrigated areas, it may be necessary to irrigate before treatment to ensure active weed growth.

**Aerial Application Methods and Equipment**

**Spray Drift Management**

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

- 1 The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
  - 2 Nozzles must always point backward parallel with the air stream and never be pointed downward more than 45 degrees. Where states have more stringent regulations, they should be observed.
- The applicator should be familiar with and take into account the information covered in the Aerial Drift

Reduction Advisory Information.

**Importance of Droplet Size**

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversion section of this label).

**Controlling Droplet Size**

**Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets. Use a minimum of 5 gallons of water per acre. Increase water volume to at least 10 gallons of water per acre if grass foliage or crop canopy is dense.

**Pressure** - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy protection. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure. Use up to 40 psi.

**Number of nozzles** - Use the minimum number of nozzles that provide uniform coverage.

**Nozzle Orientation** - Orienting nozzles so that the spray is released backward, parallel to the airstream, will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.

**Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types. Use only diaphragm-type nozzles that produce fan spray patterns.

**Boom Length** - For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

**Application** - Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

**Swath Adjustment**

When applications are made with a cross-wind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

**Wind**

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. Do not apply **Equinox® herbicide** by aircraft when wind is blowing more 10 mph. **Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

**Temperature and Humidity**

When making applications in low relative humidity, set

equipment up to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

**Temperature Inversions**

Applications should not occur during a temperature inversion, because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun set and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a connected cloud (under low wind conditions) indicates an inversion, while smoke that moves upwards and rapidly dissipates indicates good vertical air mixing.

**Sensitive Areas**

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, nontarget crops) is minimal (e.g. when wind is blowing away from the sensitive areas). Do not apply **Equinox** by air if sensitive species are within 200 feet downwind.

**Ground Application (Banding)**

**Equinox** may be applied by banding to control annual grasses. Banding is not recommended for perennial grasses.

Follow **Ground Application (Broadcast)** instructions for band applications. When applying **Equinox** by banding, determine the amount of herbicide and water volume needed using the following formula:

$$\frac{\text{Bandwidth in inches}}{\text{Row width in inches}} \times \frac{\text{Broadcast rate}}{\text{per acre}} = \frac{\text{Banding herbicide}}{\text{rate per acre}}$$

$$\frac{\text{Bandwidth in inches}}{\text{Row width in inches}} \times \frac{\text{Broadcast volume per acre}}{\text{volume per acre}} = \frac{\text{Banding water}}{\text{volume per acre}}$$

**Ground Application Methods and Equipment (Broadcast)**

Do not apply when conditions favor drift from target area or when windspeed is greater than 10 mph.

**Water Volume:** Use 5-20 gallons of spray solution. In arid growing regions in the West and in the High and Rolling Plains of TX, OK, and KS, use a minimum of 10 gallons of spray solution per acre.

**Spray Pressure:** Use 40-60 psi (measured at the boom, not at the pump or in the line). Increase water volume up to 50 gallons if crop or weed foliage is dense.

**Application Equipment:** Use standard high-pressure pesticide flat fan or hollow cone nozzles spaced up to 20 inches apart. Do not use flood, whirl chamber, or controlled droplet applicator (CDA) nozzles as erratic coverage can cause inconsistent weed control. When tall weeds such as volunteer corn are to be controlled, the boom should be high enough to cover the entire plant. Refer to the nozzle manufacturer's directions for recommended height.

Do not use selective application equipment such as recirculating sprayers or wiper applicators.

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### Rescue Treatment for Controlling Selected Annual Grasses

If **Equinox** cannot be applied at the recommended time, larger annual grasses may be controlled with a later application by increasing the rate of **Equinox**<sup>®</sup> herbicide (see **Table 1. Annual Grasses**). Do not exceed the maximum rate per acre, per season, for specific crops (see **Table 3**).

### Spot or Small Area Application

Do not make spot treatments in addition to broadcast or band treatments.

When using knapsack sprayers or high-volume spray equipment with hand guns or other suitable nozzle arrangements, prepare a 0.33% (2 fluid ounces per 5

gallons) solution of **Equinox** in water. Include 1% (6 fluid ounces per 5 gallons) of oil concentrate in the spray solution. Treat foliage of targeted grasses to wet, while minimizing runoff of spray solution. Do not use spot applications in canola.

**Table 1. Application Rates and Timing**

Annual Grass	Maximum Height	Rate Per Acre
Barnyardgrass	8"	7.0 fluid ounces
Brome, Cheat	6"	
, Downy	6"	
, Rippgut	6"	
Bluegrass, Annual	4"	
Crabgrass, Large <sup>1</sup>	6"	
, Smooth <sup>1</sup>	6"	
, Southern <sup>1</sup>	6"	
Crowfootgrass	6"	
Cupgrass, Southwestern	8"	
, Woolly	8"	
Fescue, Tall (seedling)	6"	
Foxtail, Bristly	6"	
, Giant	8"	
, Green	8"	
, Yellow	8"	
Goosegrass	6"	
Itchgrass	4"	
Johnsongrass (seedling)	8"	
Junglerice	8"	
Lovegrass	6"	
Millet, Wild Proso	10"	
Oats, Tame	6"	
, Wild <sup>1</sup>	4"	
Orchardgrass (seedling)	6"	
Panicum, Browntop	8"	
, Fall	8"	
, Texas	8"	
Red Rice <sup>1</sup>	4"	
Ryegrass, Annual	8"	
Sandbur, Field	3"	
Shattercane/Wildcane <sup>1</sup>	18"	
Signalgrass, Broadleaf	8"	
Sprangletop, Amazon	8"	
, Bearded	8"	
, Red	8"	
Stinkgrass	6"	
Volunteer <sup>2</sup> Barley <sup>1</sup>	4"	
Corn <sup>1</sup>	24"	
Oats <sup>1</sup>	4"	
Rye <sup>1</sup>	4"	
Wheat <sup>1</sup>	4"	
Witchgrass <sup>1</sup>	8"	
<b>Perennial Grass<sup>3</sup></b>		
Bermudagrass	6" stolon	9.5 fluid ounces
Johnsongrass (Rhizome)	25"	
Johnsongrass (No-Till)	20"	
Muhly, Wirestem	6"	
Quackgrass	8"	
Ryegrass, Perennial	8"	

<sup>1</sup> Add nitrogen to the crop oil concentrate to improve grass control on indicated species.  
<sup>2</sup> Apply **Equinox**<sup>™</sup> herbicide before tillering.  
<sup>3</sup> Perennial grasses may require a second application and/or cultivation for season long control.

### III. Additives

To achieve consistent weed control, always use crop oil concentrate or methylated seed oil (MSO). In addition, urea ammonium nitrate or ammonium sulfate is recommended for use to enhance activity on certain grass species. (See **Table 2. Additive Rates Per Acre** for more information.)

Because most nitrogen solutions are mildly corrosive to galvanized, mild steel, and brass spray equipment, rinse the entire spray system with water soon after use.

#### Oil Concentrate or MSO

A crop oil concentrate or MSO must contain either a petroleum or vegetable oil base and must meet all of the following criteria:

- be nonphytotoxic,
- contain only EPA-exempt ingredients,
- provide good mixing quality in the jar test, and
- be successful in local experience.

The exact composition of suitable products will vary; however, vegetable and petroleum oil concentrates should contain emulsifiers to provide good mixing quality. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils.

#### Urea Ammonium Nitrate (UAN)

Commonly referred to as 28%, 30% or 32% nitrogen solution, UAN may be used in addition to crop oil concentrate or MSO to improve weed control. The use of UAN is not labeled in California and not recommended in the Pacific Northwest.

#### Ammonium Sulfate (AMS)

When AMS is used, 3 quarts of liquid AMS (8-8-0 analysis) may be substituted for 2.5 pounds of solid AMS.

If the AMS is added directly to the spray tank, add slowly while agitating. Adding the mix too quickly may clog outlet lines. Be sure the AMS is completely dissolved before adding any other products.

The use of UAN is not labeled in California and not recommended in the Pacific Northwest.

**Table 2. Additive Rate Per Acre**

Additive	Ground Application	Aerial Application
Oil Concentrate	2 pints	2 pints
MSO	1.5 pints	1.5 pints
UAN Solution	4-8 pints	4 pints
AMS	2.5 pounds	2.5 pounds

### IV. General Tank Mixing Information

#### Tank Mix Partners/Components

The following products may be tank mixed with **Equinox™ herbicide** according to the specific tank mixing instructions in this label and respective product labels.

- |  |   |
|--|---|
| • <b>Action™</b> /fluthiacet             | • <b>Pursuit® DG</b> /imazethapyr       |
| • <b>Basagran®</b> /bentazon             | • <b>Raptor®</b> /imazamox              |
| • <b>Blazer®</b> /acifluorfen            | • <b>Reflex®</b> /fomesafen             |
| • <b>Buctril®</b> /bromoxynil            | • <b>Resource®</b> /flumiclorac         |
| • <b>Classic®</b> /chlorimuron           | • <b>Roundup Ultra®</b> /glyphosate     |
| • <b>Cobra®</b> /lactofen                | • <b>Scepter®</b> /imazaquin            |
| • <b>FirstRate®</b> /cloransulam         | • <b>Staple®</b> /pyrithiobac           |
| • <b>Flexstar®</b> /fomesafen            | • <b>Storm®</b> /bentazon + acifluorfen |
| • <b>Frontier®</b> /dimethenamid         | • <b>Touchdown®</b> /sulfosate          |
| • <b>Galaxy®</b> /bentazon + acifluorfen | • <b>2,4-DB</b>                         |
| • <b>Liberty®</b> /glufosinate           | • <b>2,4-D (LVE)</b>                    |
| • <b>Pursuit®</b> /imazethapyr           |   |

See section **VII. Crop-Specific Information** for more details. Read and follow the applicable **Restrictions and Limitations and Directions For Use** on all products involved in tank mixing. The most restrictive labeling applies to tank mixes.

Separate applications should be made if all target weeds are not at the labeled growth stage for treatment at the same time.

Tank mixing **Equinox** with some postemergence broadleaf herbicides has shown some reduction or failure to control some grasses that would otherwise be controlled and therefore may require a higher rate of **Equinox**. However, do not exceed the maximum rate per application as listed in Table 3. If regrowth occurs or an additional flush of new grasses emerges, reapply **Equinox** according to recommended rates in **Table 1**.

Physical incompatibility, reduced weed control, or crop injury may result from mixing **Equinox** with other pesticides (fungicides, herbicides, insecticides, or miticides), additives, or fertilizers. BASF does not recommend using tank mixes other than those listed on BASF labeling. Local agricultural authorities may be a source of information when using other than BASF recommended tank mixes.



### Compatibility Test for Mix Components

Before mixing components, always perform a compatibility jar test.

For 20 gallons per acre spray volume, use 3.3 cups (800 ml) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source at the source temperature.

Add components in the sequence indicated in the **Mixing Order** using 2 teaspoons for each pound or 1 teaspoon for each pint of recommended label rate per acre.

Always cap the jar and invert 10 cycles between component additions.

When the components have all been added to the jar, let the solution stand for 15 minutes. Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface, nor fine particles that precipitate to the bottom, nor thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is then compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, do not mix the ingredients in the same tank.

### Mixing Order

- 1) **Water.** Begin by agitating a thoroughly clean sprayer tank three-quarters full of clean water.
- 2) **Agitation.** Maintain constant agitation throughout mixing and application.
- 3) **Products in PVA bags.** Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
- 4) **Water-dispersible products** (such as dry flowables, wettable powders, suspension concentrates, or suspo-emulsions).  
If an inductor is used, rinse it thoroughly after the component has been added.
- 5) **Water-soluble products.** If an inductor is used, rinse it thoroughly after the component has been added.
- 6) **Emulsifiable concentrates** (such as **Equinox® herbicide** or oil concentrate when applicable). If an inductor is used, rinse it thoroughly after the component has been added.
- 7) **Water-soluble additives** (such as AMS or UAN when applicable). If an inductor is used, rinse it thoroughly after the component has been added.
- 8) **Remaining quantity of water.**

Maintain constant agitation during application.

## V. Restrictions and Limitations

- **Maximum seasonal use rate:** See **Table 3** for crop-specific maximum seasonal use rates.
- **Preharvest Interval:** See **Table 3** for crop-specific preharvest intervals.
- **Restricted Entry Interval (REI): 12 hours.**
- Avoid all direct or indirect contact with any desired grass crop.
- Do not apply to grasses or crops under stress such as stress due to lack of moisture, hail damage, flooding, herbicide injury, mechanical injury, or widely fluctuating temperatures, as crop injury or unsatisfactory control may result.
- Do not apply to crops that show injury (leaf phytotoxicity or plant stunting) produced by any other prior herbicide applications, because this injury may be enhanced or prolonged.
- Do not apply **Equinox® herbicide** with another pesticide whose label cautions against use with oil adjuvants.
- Do not use **selective application equipment** such as recirculating sprayers, wiper applicators, or shielded applicators.
- **Rainfast Period: Equinox** is rainfast 1 hour after application.
- Do not apply through any type of irrigation equipment.
- Do not apply past the 6 leaf stage or in to the bolting stage of canola.
- **Crop Rotation Restriction:** Do not plant any crop other than cotton, canola or soybeans for a period of 260 days following the last application of **Equinox**.
- Do not apply **Equinox** to control grasses growing on residential or public sites.

**Table 3. Crop-Specific Restrictions and Limitations**

Crop	Minimum Time from Application to Harvest (PHI)	Maximum Rate Per Acre Per Application	Maximum Rate Per Acre Per Season	Livestock Grazing or Feeding	Aircraft Application
Canola*	60 days	2.5 fl. oz.	2.5 fl. oz.	Yes	Yes
Cotton	40 days	9.5 fl. oz.	19 fl. oz.	Yes	Yes
Soybeans	45 days	9.5 fl. oz.	19 fl. oz.	Yes	Yes
Fallow or Non-Cropland	NA	9.5 fl. oz.	19 fl. oz.	Yes	Yes

\*Only for use in ND, SD, MN and MT.

## VI. Crop-Specific Information

### Canola

**Equinox™ herbicide** may be applied for the control of emerged grasses (listed in **Table 1. Application Rates and Timing**) in canola grown only in the states of North Dakota, South Dakota, Minnesota and Montana. Apply up to 2.5 fluid ounces of **Equinox** per acre. Applications must be made prior to the 6 leaf stage or bolting stage of canola. Applications after 6 leaves or the bolting stage may result in crop injury. Do not make more than one application per season.

### Cotton

**Equinox** may be applied for the control of emerged grasses any time up to 40 days prior to cotton harvest. Apply up to 9.5 fluid ounces per acre of **Equinox** in a single application. A maximum of two applications with a minimum retreatment interval of 14 days between applications may be made. Do not exceed a total of 19 fluid ounces per acre per season.

### Tank Mixes

**Equinox** may be applied in a tank mix with the following herbicides (including herbicides registered for use in cotton tolerant to bromoxynil):

- |           |          |
|-----------|----------|
| •Buctril* | •Staple* |
|-----------|----------|

## Fallow and Non-Cropland

**Equinox** may be used for the control of emerged annual or perennial grasses in fallow areas (between crops) or in non-crop areas (rights-of-ways, roadsides and other paved areas, along fences and hedgerows, storage yards, electric transformer stations, pipeline pumping stations, sewage disposal areas, and uncultivated agricultural areas). **Equinox** is not for use to control grassy weeds growing on residential or public sites.

Apply to actively growing grasses before they exceed height recommended in **Table 1**. Apply up to 9.5 fluid ounces per acre of **Equinox** in a single application. Repeat applications may be made but do not exceed a total of 19 fluid ounces per acre per season. Canola, cotton and soybeans may be planted immediately after an application of **Equinox**. Other crops may be planted at 260 days following application of **Equinox**.

### Soybeans

**Equinox** may be applied for the control of emerged grasses any time up to 45 days prior to soybean harvest. Apply up to 9.5 fluid ounces per acre of **Equinox** in a single application. A maximum of two applications with a minimum retreatment interval of 14 days between applications may be made. Do not exceed a total of 19 fluid ounces per acre per season.

### Tank Mixes

**Equinox** may be applied in a tank mix with the following herbicides (including herbicides registered for use in soybean varieties tolerant to glufosinate and glyphosate):

- |             |                 |
|-------------|-----------------|
| •Action*    | •Pursuit DG*    |
| •Basagran*  | •Reflex*        |
| •Blazer*    | •Resource*      |
| •Classic*   | •Raptor*        |
| •Cobra*     | •RoundUp Ultra* |
| •FirstRate* | •Scepter*       |
| •Flexstar*  | •Storm*         |
| •Frontier*  | •Touchdown*     |
| •Galaxy*    | •2,4-DB         |
| •Liberty*   | •2,4-D (LVE)*   |
| •Pursuit*   |                 |

\* Use for preplant applications only.

**Crops**

This product can be used on the following crops:

- Canola
- Cotton
- Fallow
- Non-Cropland
- Soybeans

Look inside for complete **Restrictions and Limitations** and **Application Instructions**.

**Weeds listed in this label:**

Common Name	Scientific Name
Barnyardgrass (Watergrass)	<i>Echinochloa crus-galli</i>
Bermudagrass (Wiregrass)	<i>Cynodon dactylon</i>
Brome, Cheat	<i>Bromus secalinas</i>
, Downy	<i>Bromus tectorum</i>
, Rippgut	<i>Bromus diandrus</i>
Bluegrass, Annual	<i>Poa annua</i>
Crabgrass, Large	<i>Digitaria sanguinalis</i>
, Smooth	<i>Digitaria ischaemum</i>
, Southern	<i>Digitaria ciliaris</i>
Crowfootgrass	<i>Dactyloctenium aegyptium</i>
Cupgrass, Southwestern	<i>Eriochloa gracillis</i>
, Woolly	<i>Eriochloa villosa</i>
Fescue, Tall	<i>Festuca arundinacea</i>
Foxtail, Bristly	<i>Setaria verticillata</i>
, Giant (Pigeongrass)	<i>Setaria faberi</i>
, Green	<i>Setaria viridis</i>
, Yellow	<i>Setaria glauca</i>
Goosegrass	<i>Eleusine indica</i>
Itchgrass	<i>Rottboellia exaltata</i>
Johnsongrass	<i>Sorghum halepense</i>
Junglerice	<i>Echinochloa colonum</i>
Millet, Wild Proso	<i>Panicum miliaceum</i>
Muhly, Wirestem	<i>Muhlenbergia frondosa</i>
Oats, Tame	<i>Avena sativa</i>
, Wild	<i>Avena fatua</i>
Orchardgrass	<i>Dactylis glomerata</i>
Panicum, Browntop	<i>Panicum fasciculatu</i>
, Fall	<i>Panicum dichotomiflorum</i>
, Texas	<i>Panicum texanum</i>
Quackgrass	<i>Agropyron repens</i>
Red Rice	<i>Oryza sativa</i>
Ryegrass, Annual	<i>Lolium multiflorum</i>
, Perennial	<i>Lolium perenne</i>
Sandbur, Field	<i>Cenchrus incertus</i>
Shattercane/Wildcane	<i>Sorghum bicolor</i>
Signalgrass, Broadleaf	<i>Brachiaria platyphylla</i>
Sprangletop, Amazon	<i>Leptochloa panicoides</i>
, Bearded	<i>Leptochloa fascicularis</i>
, Red	<i>Leptochloa filiformis</i>
Stinkgrass	<i>Festuca arundinacea</i>
Volunteer Barley	<i>Hordeum vulgare</i>
, Corn	<i>Zea mays</i>
, Oats	<i>Avena sativa</i>
, Rye	<i>Secale Cereale</i>
, Wheat	<i>Triticum aestivum</i>
Witchgrass	<i>Panicum capillare</i>

**Conditions of Sale and Warranty**

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. All such risks shall be assumed by the Buyer. BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above. **BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. IN NO CASE SHALL BASF OR THE SELLER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.** BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

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 NVA 99-4-92-0088



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