

241-372

01-26-2010

11



**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
**Office of Pesticide Programs**  
**Registration Division (7505P)**  
**Ariel Rios Building**  
**1200 Pennsylvania Ave., NW**  
**Washington, D.C. 20460**

EPA Reg. Number:

241-372

Date of Issuance:

JAN 26 2010

**NOTICE OF PESTICIDE:**

Registration  
 Reregistration  
 (under FIFRA, as amended)

Term of Issuance:

Name of Pesticide Product:

Sahara DG Herbicide

Name and Address of Registrant (include ZIP Code):

BASF Corporation  
 26 Davis Drive  
 Research Triangle Park, NC 27709

~~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 reregistered in accordance with FIFRA section 4(g)(2)(C) provided you:

1. Submit and/or cite all data required for registration review/reregistration of your product when the Agency requires all registrants of similar products to submit data.
2. Make all the following changes to the product label:
  - a. Due to the importance of resistance management to a long-term pest-management strategy, it is suggested that resistance management grouping symbols and statements be included on the labeling as described in PR Notice 2001-5.
  - b. Due to the acute toxicity profile for this product, the First Aid statement "If inhaled" is optional.
  - c. Change the Hazards to Humans and Domestic Animals statement to read as follows:  
 "CAUTION Causes moderate eye irritation. **Harmful if absorbed through skin.** Avoid contact with eyes, skin, or clothing."
  - d. Change the PPE sentence to read "Some materials that are chemical-resistant to this product **are made of any waterproof material.**"

Continued on Page 2

Signature of Approving Official:

Jim Tompkins  
 Product Manager 25  
 Herbicide Branch  
 Registration Division (7505P)

Date:

JAN 26 2010

- e. Under the PPE for Pilots, flaggers, and groundboom applicators, add a third bullet with the statement "Groundboom applicators must also wear chemical-resistant gloves made of any waterproof material."
- f. Under the PPE for dust/mist respirator, remove the "N" filter designation since this product can be mixed with oils.
- g. Change the User Safety Recommendations statement to read "Wash hands with plenty of soap and water **after handling and** before eating, drinking, chewing gum, using tobacco, or using the toilet."
- h. On page 2, remove the "General Precautions and Restrictions" section.
- i. Under Directions for Use, change the first paragraph to read "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.**"
- j. Under Directions for Use, change the second paragraph to read "Sahara DG **must** be used only in accordance with **directions** on the leaflet label attached to the container..."
- k. Throughout the label, change the heading from "GENERAL INFORMATION" to "PRODUCT INFORMATION", as the term "general" renders all information contained within to be advisory and unenforceable.
- l. Change the Pesticide Disposal statement to read "Wastes resulting from the use of this product **must** be disposed of on site or at an approved waste disposal facility."
- m. Change the Container Disposal sentence to read "After completely emptying container into application equipment, **offer for recycling if available, or** dispose of empty bag..."
- n. Under Spray Drift Requirements/Aerial Applications, add the restriction "Do not apply by air if sensitive non-target crops are within 100 feet of the application site." as per the diuron RED.
- o. On page 5 under Weeds Controlled by Sahara DG, change the text to read "Refer to the APPLICATION INSTRUCTIONS section for use rate **directions**. Sahara DG **must** be used only in accordance with **directions** on this label."
- p. On page 7 under Brush Species, provide a listing of brush species to substantiate the claim "controls more than 30 species of brush".
- q. Add the following statement to the label:  
"Use of this product in certain portions of California, Oregon, and Washington is subject to the January 22, 2004 Order for injunctive relief in Washington Toxics Coalition, et al. vs. EPA, C01-0132C, (W.D. WA). For further information, please refer to EPA Web Site: <http://www.epa.gov/espp>."

The basic and alternate confidential statements of formula (CSF) dated December 18, 2008 are acceptable.

A stamped copy of your label is enclosed for your records. You must submit one (1) copy of the final printed label before you release the product for shipment. Products shipped after twelve (12) months from the date of this notice or the next printing of the label, whichever occurs first, must bear the new revised label. If these conditions are not complied with, the 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.

Enclosure

# Sahara<sup>®</sup>

DG herbicide

## Bareground vegetation control in specified noncropland areas

### Active Ingredients:

imazapyr (2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-3-pyridinecarboxylic acid) 7.78%

diuron (3-[3,4-dichlorophenyl]-1,1-dimethylurea) 62.22%

**Other Ingredients:** 30.00%

**Total:** 100.00%

EPA Reg. No. 241-372  
U.S. Patent No. 4,798,619

EPA Est. No.

### KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCIÓN

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.)

See inside for complete **First Aid, Precautionary Statements, Directions for Use, Conditions of Sale and Warranty**, and state-specific crop and/or use site restrictions.

**In case of an emergency endangering life or property involving this product, call day or night, 1-800-832-HELP (4357).**

ACCEPTED  
with COMMENTS  
in EPA Letter Dated

JAN 26 2010

**Net Contents:**

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

241-372

BASF Corporation  
26 Davis Drive  
Research Triangle Park, NC 27709

 **BASF**  
The Chemical Company

FIRST AID	
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>• Remove contact lenses, if present, after first 5 minutes; then continue rinsing eyes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If inhaled</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably mouth to mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357).	

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### CAUTION

**Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.**

#### 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 A** on an EPA chemical-resistance category selection chart.

#### Pilots, flaggers, and groundboom applicators must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

#### Mixers, loaders, other applicators, and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves, such as barrier laminate, butyl rubber or polyethylene
- A NIOSH-approved dust/mist filtering respirator with any N, R, P or HE filter or a NIOSH-approved dust/mist filtering respirator with approval number prefix TC-21C
- Chemical-resistant apron when mixing, loading or cleaning equipment or spills

See **Engineering Controls** for additional requirements.

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

## User Safety Recommendations

#### Users should:

- Wash hands with plenty of soap and water before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE 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.

#### Engineering Controls

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

Flaggers supporting aerial applications must use an enclosed cab that meets the definition in the Worker Protection Standard for Agricultural Pesticides [40CFR 170.240(d)(5)] for dermal protection. In addition, flaggers must wear long-sleeved shirts, long pants, shoes, and socks.

#### General Precautions and Restrictions

**DO NOT** enter or allow others to enter treated area until sprays have dried.

**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.

#### Environmental Hazards

This product is toxic to plants. Drift and runoff may be hazardous to plants in water adjacent to treated areas. **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 washwater or rinsate. See **DIRECTIONS FOR USE** for additional precautions and requirements.

#### Physical and Chemical Hazards

Spray solutions of **Sahara® DG herbicide** should be mixed, stored and applied only in stainless steel, fiberglass, plastic and plastic-lined steel containers.

**DO NOT** mix, store or apply **Sahara® DG herbicide** or spray solutions of **Sahara DG** in unlined steel (except stainless steel) containers or spray tanks.

**DIRECTIONS FOR USE**

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

**Sahara DG** should be used only in accordance with recommendations on the leaflet label attached to the container. Keep containers closed to avoid spills and contamination.

**NONAGRICULTURAL USE REQUIREMENTS**

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Noncrop weed control is not within the scope of the Worker Protection Standard. See the **GENERAL INFORMATION** section of this label for a description of noncrop sites.

**DO NOT** enter or allow others to enter treated areas until sprays have dried.

**Storage and Disposal**

**DO NOT** contaminate water, food or feed by storage or disposal of this product.

**Pesticide Disposal.** Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

**CONTAINER DISPOSAL (for paper or plastic bags)**

**Nonrefillable Container. DO NOT reuse or refill this container.** After completely emptying container into application equipment, dispose of empty bag in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

**In Case of Spill**

In case of large-scale spillage regarding this product, call:  
CHEMTREC 1-800-424-9300  
BASF Corporation 1-800-832-HELP (4357)

**IMPORTANT**

**DO NOT** use on food or feed crops. **DO NOT** treat irrigation ditches, or water used for crop irrigation or for domestic purposes. Keep from contact with fertilizers, insecticides, fungicides and seeds. **DO NOT** drain or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots. **DO NOT** use on lawns, walks, driveways, tennis courts, or similar areas. **DO NOT** side trim desirable vegetation with this product. Prevent drift of spray to

desirable plants. **DO NOT USE in California.** Clean application equipment after using this product by thoroughly flushing with water.

**GENERAL INFORMATION**

**Sahara DG** is a dispersible granule to be mixed with water and a spray adjuvant and applied as a spray solution to railroads, utility, pipeline and highway rights-of-way, fence rows, farmyards and around farm buildings, nonirrigation ditchbanks, and industrial noncropland areas such as utility plant sites, petroleum tank farms, pumping installations and storage areas, where bareground is desired. **Sahara DG** may also be used for weed control under paved surfaces.

**Sahara DG** will control most annual and perennial grasses and broadleaf weeds in addition to many brush and vine species and **Sahara DG** will provide residual control of weeds which germinate in the treated areas. **For annual weed control Sahara DG may be applied either pre-emergence or postemergence to the weeds; however, a late preemergence to early postemergence application is the method of choice in most situations. For perennial weed control Sahara DG is only effective when applied postemergence and will not control perennial weeds that are not emerged at the time of application.** For maximum activity, weeds should be growing vigorously at the time of postemergence application and the spray solution should include a spray adjuvant (for specific recommendations see **ADJUVANTS** section of this label).

The length of residual weed control achieved with **Sahara DG** is dependent upon the weed spectrum present, the rate applied, and weather conditions. Longer residual control can be achieved in areas with sensitive weed species, higher **Sahara DG** use rates, lower precipitation and cooler soil temperatures. Extremes in weather conditions, such as higher than average rainfall, can significantly affect the residual control of **Sahara DG** and shorten the overall length of control.

**PRECAUTIONS FOR AVOIDING INJURY TO NONTARGET PLANTS**

Untreated trees can occasionally be affected by root uptake of **Sahara DG** through movement into the topsoil. Injury or loss of desirable trees or other plants may result if **Sahara DG** is applied on or near desirable trees or other plants, on areas where their roots extend, or in locations where the treated soil may be washed or moved into contact with their roots.

Treatment of powdery dry soil or light sandy soil when there is little likelihood of rainfall soon after treatment may result in off-target movement and possible damage to desirable plants when soil particles are moved by water and/or wind. Injury to crops may result if treated soil is washed, blown, or moved onto land used to produce crops. Exposure to **Sahara DG** may injure or kill most crops.

## Spray Drift Requirements

### Aerial Applications

- Applicators are required to use a coarse or coarser droplet size (ASABE S572) or, if specifically using a spinning atomizer nozzle, applicators are required to use a volume mean diameter (VMD) of 385 microns or greater for release heights below 10 feet. Applicators are required to use a very coarse or coarser droplet size or, if specifically using a spinning atomizer nozzle, applicators are required to use a VMD of 475 microns or greater for release heights above 10 feet. Applicators must consider the effects of nozzle orientation and flight speed when determining droplet size.
- Applicators are required to use upwind swath displacement.
- The boom length must not exceed 60% of the wingspan or 90% of the rotor blade diameter to reduce spray drift.
- Applications with wind speeds less than 3 mph and with wind speeds greater than 10 mph are prohibited.
- Applications into temperature inversions are prohibited.

### Ground Boom Applications

- Applicators are required to use a nozzle height below 4 feet above the ground or plant canopy and coarse or coarser droplet size (ASABE S572) or, if specifically using a spinning atomizer nozzle, applicators are required to use a volume mean diameter (VMD) of 385 microns or greater.
- Applications with wind speeds greater than 10 mph are prohibited.
- Applications into temperature inversions are prohibited.

## Application Instructions

### Application Restrictions

- A maximum of 19 pounds of **Sahara® DG herbicide** (12 pounds of diuron) per acre may be applied in areas of high rainfall or dense vegetation.
- A maximum of 12.85 pounds of **Sahara DG** per acre (8 pounds of diuron) may be applied in all other areas.
- A maximum of two (2) applications may be made per year.
- The minimum retreatment interval is 90 days.

When using **Sahara DG** in combination with other diuron-containing products a total of no more than 12 pounds of diuron may be applied per application in high rainfall or dense vegetation areas and a total of 8 pounds of diuron per application in all other areas. No more than two applications of diuron-containing products may be made per year with a minimum of 90 days between treatments.

**Sahara DG** controls many annual weeds when applied either preemergence or postemergence and many perennial weeds when applied postemergence (See the **Weeds Controlled** section for a list of susceptible weeds).

**Sahara DG** should be mixed in water and applied with properly calibrated equipment to deliver the desired gallons per acre of spray volume in a uniformly distributed spray pattern across the treated area. **Sahara DG** should be

applied at a minimum of 7 pounds of product per acre. Rates as low as 5 pounds of **Sahara DG** per acre may be used, but must be tank mixed with another herbicide (see **TANK MIXES** section below). For retreatment purposes within the same growing season, **Sahara DG** rates less than 7 pounds per acre may be used. **DO NOT** apply more than a total of 19 pounds per acre in a 12 month period in areas with high rainfall or dense vegetation. A maximum of 12.85 pounds of **Sahara DG** per acre may be applied in all other areas.

The length of residual weed control achieved with **Sahara DG** may be significantly affected by rainfall amounts. To achieve the desired residual control with increasing rainfall amounts, higher rates of **Sahara DG** should be applied. As a general guideline the **Sahara DG** rates listed below are recommended for different annual rainfall amounts. Actual use rates will vary depending upon the length of residual control desired, weed pressure and environmental conditions.

Average Annual Rainfall in Inches	Pounds of Sahara DG
Less than 15 inches	*7 to 10 pounds of product
Between 15 and 35 inches	8 to 13 pounds of product
Greater than 35 inches	13 to 19 pounds of product

\* For initial applications **Sahara DG** may be used at rates as low as 5 to 6 pounds per acre, but must be tank mixed with another herbicide (see **TANK MIXES** section).

Ensure that spray equipment maintains adequate agitation to keep **Sahara DG** suspended in spray mixture.

### Postemergence Applications

Always use a spray adjuvant (see **ADJUVANTS** section of this label) when making a postemergence application. For optimum performance on tough to control perennial weeds, applications should be made at a total volume of 100 gallons per acre or less, in combination with 1 quart per acre of a methylated seed oil. For quicker burndown or brown-out of target weeds, **Sahara DG** may be tank mixed with products such as **Roundup® herbicide** or **Finale® herbicide** (see **TANK MIXES** section of this label for other products and specific recommendations).

### Spot Treatments and Crack and Crevice Treatments

**Sahara DG** may be used as an initial or follow-up treatment to control escapes or weed encroachment in a bare-ground situation including cracks and crevices in paved surfaces such as roadways, runways and parking areas. To prepare the spray solution, thoroughly mix in each gallon of water at least 0.5 to 1 pound of **Sahara DG** plus an adjuvant. **DO NOT** exceed the maximum use rate per acre for the area being treated. For increased burndown, include **Roundup, Finale**, or similar products (see **TANK MIXES** section of this label for other products and specific recommendations).

### TANK MIXES

**Sahara<sup>®</sup> DG herbicide** may be tank mixed with **Roundup<sup>®</sup>**, **Karmex<sup>®</sup>** (diuron), **Oust<sup>®</sup>**, **Garlon<sup>®</sup>**, **Finale<sup>®</sup>**, **Banvel<sup>®</sup>**, **Vanquish<sup>®</sup>**, **Pendulum<sup>®</sup>**, **Plateau<sup>®</sup>** or **Arsenal<sup>®</sup> herbicides**. Tank mixes with 2,4-D or products which contain 2,4-D, have resulted in reduced performance of perennial weed control.

Consult manufacturer's labels for specific rates and weeds controlled. Always follow the more restrictive label when making an application involving tank mixes.

### FOR CONTROL OF UNDESIRABLE WEEDS UNDER PAVED SURFACES

**Sahara DG** can be used under asphalt, pond liners and other paved areas, **ONLY** in industrial sites or where the pavement has a suitable barrier along the perimeter that prevents encroachment of roots of desirable plants.

**Sahara DG** should be used only where the area to be treated has been prepared according to good construction practices. If rhizomes, stolons, tubers or other vegetative plant parts are present in the site, they should be removed by scalping with a grader blade to a depth sufficient to ensure their complete removal.

**IMPORTANT:** Paving should follow **Sahara DG** applications as soon as possible. **DO NOT** apply where the chemical may contact the roots of desirable trees or other plants.

This product is not recommended for use under pavement on residential properties, such as driveways or parking lots, nor is it recommended for use in recreational areas, such as under bike or jogging paths, golf cart paths, or tennis courts, or where landscape plantings could be anticipated.

Injury or death of desirable plants may result if this product is applied where roots are present or where they may extend into the treated area. Roots of trees and shrubs may extend a considerable distance beyond the branch extremities or the drip line.

### APPLICATION DIRECTIONS FOR USE UNDER PAVED SURFACES

Applications should be made to the soil surface only when final grade is established. **DO NOT** move soil following **Sahara DG** application.

Apply **Sahara DG** in sufficient water (at least 100 gals/acre) to ensure thorough and uniform wetting of the soil surface, including the shoulder areas. Add **Sahara DG** at a rate of 19 pounds of product per acre to clean water in the spray tank during the filling operation. Agitate before spraying.

If the soil is not moist prior to treatment, incorporation of **Sahara DG** is needed for herbicide activation. **Sahara DG** can be incorporated into the soil to a depth of 4 to 6 inches using a rototiller or disc. Rainfall or irrigation of 1 inch will also provide uniform incorporation. **DO NOT** allow treated soil to wash or move into untreated areas.

### ADJUVANTS

**Postemergence applications of Sahara DG require a spray adjuvant.**

**Nonionic Surfactants:** Use a nonionic surfactant at the rate 0.25% volume to volume (v/v) or higher (see manufacturer's label) of the spray solution (0.25% v/v is equivalent to 1 quart in 100 gallons). For best results, select a nonionic surfactant with an HLB (hydrophilic to lipophilic balance) ratio between 12 and 17 and having at least 70% surfactant in the formulated product (alcohols, fatty acids, oils, ethylene glycol or diethylene glycol should not be considered as surfactants to meet the above requirements).

**Methylated Seed Oils or Vegetable Oil Concentrates:** Instead of a surfactant, a methylated seed oil or vegetable-based seed oil concentrate may be used at the rate of 1.5 to 2 pints per acre. When using spray volumes greater than 30 gallons per acre, methylated seed oil or vegetable-based seed oil concentrates should be mixed at a rate of 1% of the total spray volume or, alternatively, use a nonionic surfactant, as described above. Research indicates that these oils may aid in **Sahara DG** deposition and uptake by plants under moisture or temperature stress. Methylated seed oils are the adjuvant of choice and will increase control of perennial weeds.

**Silicone-based Surfactants:** See manufacturer's label for specific rate recommendations. Silicone-based surfactants may reduce the surface tension of the spray droplets allowing greater spreading on the leaf surface as compared to conventional nonionic surfactants. However, some silicone-based surfactants may dry too quickly, limiting herbicide uptake.

**Fertilizer/Surfactant Blends:** Nitrogen-based liquid fertilizers, such as 28%N, 32%N, 10-34-0, or ammonium sulfate, may be added at the rate of 2 to 3 pints per acre in combination with the recommended rate of nonionic surfactant, methylated seed oil or vegetable/seed oil concentrate. The use of fertilizers in a tank mix without a nonionic surfactant, methylated seed oil or vegetable/seed oil concentrate is not recommended.

### WEEDS CONTROLLED BY SAHARA DG

**Sahara DG** will provide preemergence or postemergence control with residual control of the following target vegetation species at the rates listed. Residual control refers to control of newly germinating seedlings. In general, annual weeds may be controlled by preemergence or postemergence applications of **Sahara DG**. **For established biennials and perennials, postemergence applications of Sahara DG are recommended.** Refer to the **APPLICATION INSTRUCTIONS** section for use rate recommendations. **Sahara DG** should be used only in accordance with the recommendations on this label.

**Resistant Biotypes:** Naturally occurring biotypes (a plant within a given species that has a slightly different but distinct genetic makeup from other plants of the same species) of some weeds listed on this label (pigweed, kochia and Russian thistle) may not be effectively controlled by this and/or other herbicides (**Oust**) with the ALS/AHAS enzyme inhibiting mode of action. If naturally occurring

ALS/AHAS resistant biotypes are present in an area, **Sahara® DG herbicide** should be tank mixed or applied sequentially with an appropriate registered herbicide having a different mode of action to ensure control.

**WEEDS CONTROLLED<sup>1</sup>**

<b>GRASSES</b>		
<b>COMMON NAME</b>	<b>SPECIES</b>	<b>GROWTH HABIT<sup>2</sup></b>
Annual bluegrass	<i>(Poa annua)</i>	A
Annual ryegrass	<i>(Lolium multiflorum)</i>	A
Annual sweet vernalgrass	<i>(Anthoxanthum odoratum)</i>	A
Bahiagrass <sup>7</sup>	<i>(Paspalum notatum)</i>	P
Barnyardgrass	<i>(Echinochloa crusgalli)</i>	A
Beardgrass	<i>(Andropogon spp.)</i>	P
Bermudagrass <sup>7, 8, 9</sup>	<i>(Cynodon dactylon)</i>	P
Big bluestem <sup>7</sup>	<i>(Andropogon gerardii)</i>	P
Broadleaf signalgrass	<i>(Brachiaria platyphylla)</i>	A
Canada bluegrass	<i>(Poa compressa)</i>	P
Cattail	<i>(Typha spp.)</i>	P
Cheat	<i>(Bromus secalinus)</i>	A
Cogongrass	<i>(Imperata cylindrica)</i>	P
Crabgrass	<i>(Digitaria spp.)</i>	A
Dallisgrass <sup>7</sup>	<i>(Paspalum dilatatum)</i>	P
Downy brome	<i>(Bromus tectorum)</i>	A
Fall panicum	<i>(Panicum dichotomiflorum)</i>	A
Feathertop	<i>(Pennisetum villosum)</i>	P
Fescue	<i>(Festuca spp.)</i>	A/P
Foxtail	<i>(Setaria spp.)</i>	A
Goosegrass	<i>(Eleusine indica)</i>	A
Guineagrass	<i>(Panicum maximum)</i>	P
Italian ryegrass	<i>(Lolium multiflorum)</i>	A
Johnsongrass	<i>(Sorghum halepense)</i>	P
Kentucky bluegrass	<i>(Poa pratensis)</i>	P
Kyllinga	<i>(Cyperus brevifolius)</i>	A
Lovegrass	<i>(Eragrostis spp.)</i>	A/P
Maidencane	<i>(Arundinaria amabilis)</i>	P
Orchardgrass	<i>(Dactylis glomerata)</i>	P
Paragrass	<i>(Brachiaria mutica)</i>	P
Peppergrass	<i>(Lepidium virginicum)</i>	A
Phragmites	<i>(Phragmites australis)</i>	P
Prairie cordgrass	<i>(Spartina pectinata)</i>	P
Prairie threeawn	<i>(Aristida oligantha)</i>	P
Quackgrass	<i>(Agropyron repens)</i>	P
Rattail fescue	<i>(Vulpia myuros)</i>	A
Reed canarygrass	<i>(Phalaris arundinacea)</i>	P
Ricegrass	<i>(Oryzopsis hymenoides)</i>	A
Saltgrass <sup>7, 8, 9</sup>	<i>(Distichlis stricta)</i>	P
Sand dropseed <sup>7</sup>	<i>(Sporobolus cryptandrus)</i>	P
Sandbur	<i>(Cenchrus spp.)</i>	A
Smooth brome	<i>(Bromus inermis)</i>	P
Sprangletop <sup>6, 7</sup>	<i>(Leptochloa spp.)</i>	A
Timothy	<i>(Phleum pratense)</i>	P
Torpedograss	<i>(Panicum repens)</i>	P
Vaseygrass	<i>(Paspalum urvillei)</i>	P
Velvetgrass	<i>(Holcus lanatus)</i>	A

**WEEDS CONTROLLED<sup>1</sup> (continued)**

<b>GRASSES (continued)</b>		
<b>COMMON NAME</b>	<b>SPECIES</b>	<b>GROWTH HABIT<sup>2</sup></b>
Wild barley	<i>(Hordeum spp.)</i>	A
Wild oats	<i>(Avena fatua)</i>	A
Wirestem muhly	<i>(Muhlenbergia frondosa)</i>	P
Witchgrass	<i>(Panicum capillare)</i>	A
<b>BROADLEAF WEEDS</b>		
<b>COMMON NAME</b>	<b>SPECIES</b>	<b>GROWTH HABIT<sup>2</sup></b>
Arrowwood	<i>(Pluchea sericea)</i>	A
Ageratum	<i>(Asteraceae houstonianum)</i>	P
Broom snakeweed <sup>3</sup>	<i>(Gutierrezia sarothrae)</i>	P
Bull thistle	<i>(Cirsium vulgare)</i>	B
Burdock	<i>(Arctium spp.)</i>	B
Canada thistle <sup>7</sup>	<i>(Cirsium arvense)</i>	P
Carolina geranium	<i>(Geranium carolinianum)</i>	A
Carpetweed	<i>(Mollugo verticillata)</i>	A
Clover	<i>(Trifolium spp.)</i>	A/P
Cocklebur	<i>(Xanthium strumarium)</i>	A
Common chickweed	<i>(Stellaria media)</i>	A
Common ragweed	<i>(Ambrosia artemisiifolia)</i>	A
Corn spurry	<i>(Spergula arvensis)</i>	P
Dandelion	<i>(Taraxacum officinale)</i>	P
Dayflower	<i>(Commelina spp.)</i>	A/P
Desert camelthorn	<i>(Alhagi pseudalhagi)</i>	P
Diffuse knapweed	<i>(Centaurea diffusa)</i>	A
Dock	<i>(Rumex spp.)</i>	P
Dogfennel	<i>(Eupatorium capillifolium)</i>	A
Filaree	<i>(Erodium spp.)</i>	A
Fleabane	<i>(Erigeron spp.)</i>	A
Giant ragweed <sup>7</sup>	<i>(Ambrosia trifida)</i>	A
Goldenrod	<i>(Solidago spp.)</i>	P
Grey rabbitbrush	<i>(Chrysothamnus nauseosus)</i>	P
Gromwell	<i>(Lithospermum spp.)</i>	A
Groundcherry	<i>(Physalis spp.)</i>	A/P
Hawksbeard	<i>(Crepis spp.)</i>	A
Hoary vervain	<i>(Verbena stricta)</i>	P
Horsenettle	<i>(Solanum carolinense)</i>	P
Horseweed	<i>(Conyza canadensis)</i>	A
Indian mustard	<i>(Brassica juncea)</i>	A
Japanese bamboo	<i>(Polygonum cuspidatum)</i>	P
Knawel	<i>(Scleranthus annuus)</i>	A
Kochia <sup>3</sup>	<i>(Kochia scoparia)</i>	A
Lambsquarters	<i>(Chenopodium album)</i>	A
Lespedeza	<i>(Lespedeza spp.)</i>	P
Little mallow	<i>(Malva parviflora)</i>	B
Marigold	<i>(Tagetes spp.)</i>	P
Milkweed	<i>(Asclepias spp.)</i>	P
Miners lettuce	<i>(Montia perfoliata)</i>	A
Morningglory	<i>(Ipomoea spp.)</i>	A/P
Mullein	<i>(Verbascum spp.)</i>	B
Nettleleaf goosefoot	<i>(Chenopodium murale)</i>	A

**WEEDS CONTROLLED<sup>1</sup> (continued)**

**BROADLEAF WEEDS (continued)**

COMMON NAME	SPECIES	GROWTH HABIT <sup>2</sup>
Oxeye daisy	<i>(Chrysanthemum leucanthemum)</i>	P
Pennycress	<i>(Thlaspi spp.)</i>	A
Pepperweed	<i>(Lepidium spp.)</i>	A
Pigweed <sup>6</sup>	<i>(Amaranthus spp.)</i>	A
Pineapple weed	<i>(Matricaria matricarioides)</i>	P
Plantain	<i>(Plantago spp.)</i>	P
Pokeweed	<i>(Phytolacca americana)</i>	P
Prickly sida	<i>(Sida spinosa)</i>	A
Primrose	<i>(Oenothera kunthiana)</i>	P
Puncturevine	<i>(Tribulus terrestris)</i>	A
Purple loosestrife <sup>3</sup>	<i>(Lythrum salicaria)</i>	P
Purslane	<i>(Portulaca spp.)</i>	A
Ragweed	<i>(Ambrosia spp.)</i>	A
Rush skeletonweed <sup>3</sup>	<i>(Chondrilla juncea)</i>	B
Russian knapweed	<i>(Centaurea repens)</i>	P
Russian thistle <sup>3</sup>	<i>(Salsola kali)</i>	A
Saltbush	<i>(Atriplex spp.)</i>	A
Sesbania	<i>(Sesbania spp.)</i>	A
Sicklepod	<i>(Cassia obtusifolia)</i>	A
Silverleaf nightshade	<i>(Solanum elaeagnifolium)</i>	P
Shepherd's purse	<i>(Capsella bursa-pastoris)</i>	A
Smartweed	<i>(Polygonum spp.)</i>	A/P
Sorrell	<i>(Rumex spp.)</i>	P
Sowthistle	<i>(Sonchus spp.)</i>	A
Speedwell	<i>(Veronica spp.)</i>	A
Stinging nettle <sup>3</sup>	<i>(Urtica dioica)</i>	P
Sunflower	<i>(Helianthus spp.)</i>	A
Sweet clover	<i>(Melilotus spp.)</i>	A/B
Tansymustard	<i>(Descurainia pinnata)</i>	A
Texas thistle	<i>(Cirsium texanum)</i>	P
Velvetleaf	<i>(Abutilon theophrasti)</i>	A
Western ragweed	<i>(Ambrosia psilostachya)</i>	P
Wild buckwheat	<i>(Polygonum convolvulus)</i>	A
Wild carrot	<i>(Daucus carota)</i>	B
Wild lettuce	<i>(Lactuca spp.)</i>	A/B
Wild parsnip	<i>(Pastinaca sativa)</i>	B
Wild radish	<i>(Raphanus raphanistrum)</i>	B
Wild turnip	<i>(Brassica campestris)</i>	B
Woollyleaf bursage	<i>(Franseria tomentosa)</i>	P
Yellow starthistle	<i>(Centaurea solstitialis)</i>	A
Yellow woodsorrel	<i>(Oxalis stricta)</i>	P

**WEEDS CONTROLLED<sup>1</sup> (continued)**

**VINES AND BRAMBLES**

COMMON NAME	SPECIES	GROWTH HABIT <sup>2</sup>
Blackberry <sup>4</sup>	<i>(Rubus spp.)</i>	P
Dewberry <sup>4</sup>	<i>(Rubus spp.)</i>	P
Field bindweed	<i>(Convolvulus arvensis)</i>	P
Greenbriar	<i>(Smilax spp.)</i>	P
Hedge bindweed	<i>(Calystegia sepium)</i>	A
Honeysuckle	<i>(Lonicera spp.)</i>	P
Kudzu <sup>5</sup>	<i>(Pueraria lobata)</i>	P
Morningglory	<i>(Ipomoea spp.)</i>	A/P
Poison ivy	<i>(Rhus radicans)</i>	P
Redvine	<i>(Brunnichia cirrhosa)</i>	P
Trumpet creeper <sup>7</sup>	<i>(Campsis radicans)</i>	P
Virginia creeper <sup>7</sup>	<i>(Parthenocissus quinquefolia)</i>	P
Wild buckwheat	<i>(Polygonum convolvulus)</i>	P
Wild grape	<i>(Vitis spp.)</i>	P
Wild rose	<i>(Rosa spp.)</i>	P

**BRUSH SPECIES**

**Sahara® DG herbicide** controls more than 30 species of brush.

<sup>1</sup> The higher rates should be used where heavy or well-established infestations occur.

<sup>2</sup> Growth Habit. A = Annual, B = Biennial, P = Perennial

<sup>3</sup> For best results early postemergence applications are required.

<sup>4</sup> The degree of control is species dependent. Some *Rubus* species may not be completely controlled.

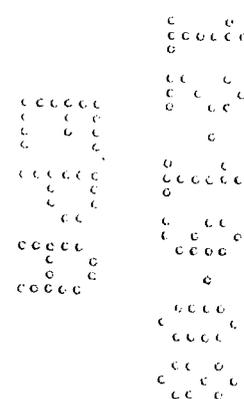
<sup>5</sup> Use a minimum of 75 GPA. Control of established stands may require repeat applications.

<sup>6</sup> **Control is species dependent. A tank mix with Pendulum® herbicide for preemergence control and/or a postemergence application of a labeled herbicide may be required.**

<sup>7</sup> Require a minimum of 12.85 pounds **Sahara DG** per acre.

<sup>8</sup> For best results, tank mix with **Oust® herbicide**.

<sup>9</sup> Control of established stands may require repeat applications.



## 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 must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the 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. To the extent consistent with applicable law, 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.

To the extent consistent with applicable law, BASF makes no other express or implied warranty of fitness or merchantability or any other express or implied warranty.

To the extent consistent with applicable law, Buyer's exclusive remedy and BASF's exclusive liability, whether in contract, tort, negligence, strict liability, or otherwise, shall be limited to repayment of the purchase price of the product.

To the extent consistent with applicable law, BASF and the Seller disclaim any liability 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.

0408

*Arsenal, Banvel, Pendulum, Plateau and Sahara* are registered trademarks of BASF.

*Finale* is a registered trademark of Bayer Ag.

*Garlon* is a registered trademark of Dow AgroSciences LLC.

*Karmex* and *Oust* are registered trademarks of E.I. duPont de Nemours and Company.

*Roundup* is a registered trademark of Monsanto Technology LLC.

*Vanquish* is a registered trademark of a Syngenta Group Company.

© 2008 BASF Corporation  
All rights reserved.

000241-00372.20081020.NVA 2008-04-167-0300  
Supersedes NVA 2008-04-167-0223

BASF Corporation  
26 Davis Drive  
Research Triangle Park, NC 27709



The Chemical Company