

RESTRICTED USE PESTICIDE

DUE TO GROUND AND SURFACE WATER CONCERNS

For retail sale to and use only by certified applicators or persons under their direct supervision, and only for those uses covered by the certified applicator's certification.

This product is a restricted use herbicide due to ground and surface water concerns. Users must read and follow all precautionary statements and instructions for use in order to minimize potential for atrazine to reach ground and surface water.

BASF

Not intended for use in California

RT 3-7-96

COPY 2b

Headline™ B herbicide

Postemergence Flowable Herbicide

For selective postemergence broadleaf weed control in SR™ sethoxydim-resistant field corn, seed corn, and silage corn.

Active Ingredient:

Sodium salt of bentazon* [3-(isopropyl)-1H-2,1,3-benzothiadiazin-4(3H)-one,2,2-dioxide]	27.0%
Atrazine* (2-chloro-4-ethylamino-6-isopropylamino-s-triazine)	25.0%
Inert Ingredients:	48.0%
Total	100.0%

*Equivalent to 2.5 pounds per gallon each of bentazon and atrazine.
EPA Reg. No. 7969-100

ACCEPTED

MAY - 1 1996

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 7969-100

**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 the label, find someone to explain it to you in detail.)

Statement of Practical Treatment

If in eyes: Call a physician. Hold eyelids open and flush with a gentle steady stream of water for 15 minutes. Get medical attention.

If swallowed: Call a physician or Poison Control Center. Drink promptly a large quantity of milk, egg white, or gelatin mixture, or if these are not available, large quantities of water. Induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person. Avoid alcohol.

Note to physician: Probable mucousal damage may contraindicate gastric lavage.

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

See inside booklet for complete **Precautionary Statements, Directions For Use, and Conditions of Sale and Warranty.**

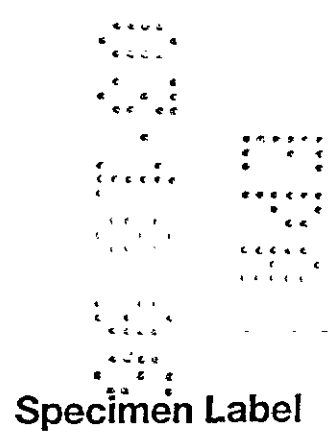
Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the **Directions For Use** section for information about this standard.

Mix well before using.

Net contents:

BASF Corporation
P.O. Box 13528, Research Triangle Park, NC 27709



Specimen Label

2 9 6

**Precautionary Statements
HAZARDS TO HUMANS (AND
DOMESTIC ANIMALS)
DANGER**

Corrosive. Causes irreversible eye damage. Due to irritating nature, harmful if swallowed or absorbed through skin. Do not get in eyes or on clothing. Wear goggles or face shield. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before re-use. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Chemical-resistant footwear plus socks
- Protective eyewear

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.

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 gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards

Atrazine, which is present in this product, can travel (seep or leach) through soil and can enter groundwater which may be used as drinking water. Atrazine has been found in groundwater. Users are advised not to apply Laddok S-12 to sand and loamy sand soils where the water table (groundwater) is close to the surface and where these soils are very permeable, i.e., well-drained.

Bentazon, which is present in this product is known to leach through soil into groundwater under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater.

This pesticide is toxic to aquatic invertebrates. 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 apply where runoff is likely to occur. Do not apply when weather conditions favor drift from treated areas. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

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:

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

Storage and Disposal

Do not allow this product to freeze. Do not contaminate water, food, or feed by storage or 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.

Triple rinse the Duplex II container (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. Do not re-use the empty container. Prodigy System must be returned to the point of purchase for cleaning and refilling.

**Directions For Use —
Headline B and G**

(Hereafter referred to as **Headline**) 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.

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 ≥14 mils, neoprene rubber ≥14 mils, or viton ≥14 mils
- Chemical-resistant footwear plus socks
- Protective eyewear

General Information

Headline may be applied post-emergence to control annual and perennial grasses and broadleaf weeds in **SR™ sethoxydim-resistant field corn** or corn grown for **SR** seed. Applications should be made when weeds are small and actively growing.

Only SR corn hybrids are tolerant to Headline applications.

Severe crop injury will occur to corn hybrids not labeled as SR corn.

Essentially, all grass crops such as sorghum, non-SR corn and small grain, as well as ornamental grasses such as turf, are susceptible to **Headline**; therefore, avoid all direct or indirect contact with any grass crop.

**Duplex™ II System Operating Procedure
Duplex™ II Mixing**

- 1) Fill tank of a thoroughly clean sprayer one half to two-thirds full with clean water. Start agitation.
- 2) Add tank mix partner (if applicable).
- 3) Add **Headline B** to the spray tank, add the remaining volume of water to the spray tank, then add **Headline G**. Do not attempt to pour the contents of the **Duplex II** container system (**Headline G** and **Headline B**) into the tank simultaneously or poor mixing will result.
- 4) Add oil concentrate, **Dash HC**, nitrogen solution, or AMS as recommended.
- 5) Allow to mix thoroughly.
- 6) Maintain constant agitation during application.
- 7) After dispensing **Headline B** and **Headline G** from the **Duplex II System** into the spray tank, spray within 48 hours.

Mode of Action:

Headline is effective through postemergence contact and systemic activity. Weeds must be thoroughly covered with spray. Large crop-and-weed-leaf canopies shelter smaller weeds and prevent adequate spray coverage.

Time and Rate of Application

Apply **Headline** at 3.5 pints per acre (1.75 pints of **Headline B** per acre + 1.75 pints of **Headline G** per acre) early post emergence to actively growing grasses before they reach the maximum size listed in **Table 1**.

Headline can be applied at a maximum total rate of 3.5 pints per acre. An additional 2.9 pints of **Basagran** per acre may be applied after a single application of **Headline**. An additional 2.75 pints of **Poast Plus** per acre may be applied after a single application of **Headline**.

Do not apply to grass and broadleaf weeds under stress due to lack of moisture, herbicide injury, mechanical injury, or cold temperature, as unsatisfactory control may result. Thorough spray coverage of grass and broadleaf weeds foliage is essential.

Ground Application: Use 10-20 gallons per acre of water per broadcast acre at a minimum of 40 psi pressure (measured at the boom, not at the pump or in the line) to ensure adequate spray coverage. Use standard high-pressure hollow cone or flat fan nozzles spaced 20 inches apart. Do not use flood or whirl chamber nozzles.

Air Application: Use a minimum of 5 gallons of water per acre and a maximum of 40 psi pressure. To obtain uniform coverage and to avoid drift hazards, the following application equipment and practices should be used:

Nozzle type: Use only diaphragm-type nozzles producing cone or fan spray patterns.

Nozzle height: Maximum of 10 feet above the crop.

Nozzle orientation: Nozzles must be oriented to discharge straight back with the air stream (opposite the direction of travel of the aircraft) or at some angle between straight back and straight down.

Nozzles must be located no farther than 3/4 the distance from the center of the aircraft to the end of the wing or rotor. Do not apply tank mix by aircraft within 200 feet upwind of ornamental or sensitive nontarget crops. Applicator must follow the most restrictive use precautions to avoid drift hazards and must follow labeling as well as applicable state and local regulations and ordinances. Delayed application that permits weeds to exceed the maximum size will result in inadequate control. Always read and follow all label directions when using any pesticide alone or in tank mix combinations. The most restrictive labeling applies when using a tank mix.

Physical incompatibility, reduced weed control, or crop injury may result from mixing **Headline** with pesticides (fungicides, herbicides, insecticides, or miticides), additives, or fertilizers.

BASF does not recommend the use of tank mixes with **Headline** other than those listed on BASF labels, supplemental labeling, or technical bulletins. Local agricultural authorities may be a source of information when using other than BASF recommended combinations. Do not apply **Headline** with other pesticides whose labels caution against their use with oil adjuvants.

Directed Spray or Layby

Treatments: When the crop is tall and grass and broadleaf weeds are below the crop canopy, drop nozzles should be used to direct the spray mixture onto the weeds.

Band Application: Banding may be used to control annual grass and broadleaf weeds. Grass and broadleaf weeds that are not covered or only partly covered by **Headline** will not be adequately controlled. All recommendations are on a broadcast basis. When banding, rates of **Headline**, additives, and water should be reduced in proportion to the area sprayed.

Cultivation Information

Do not cultivate within 5 days prior to application of **Headline** or within 7 days following application. A timely cultivation after 7 days may aid in providing season-long control.

Additives

A nonphytotoxic oil concentrate (commonly referred to as oil concentrate) or **Dash[®] HC spray adjuvant** should always be added to the spray tank as recommended. The oil concentrate must contain either a petroleum or vegetable oil base and must meet the following criteria:

- 1) be nonphytotoxic,
- 2) contain only EPA exempt ingredients,

3) provide good mixing quality in the jar test, and

4) be successful in local experience. The exact composition of suitable oil concentrates will vary, however, vegetable and petroleum oil concentrates should contain emulsifiers that provide good mixing quality.

For vegetable oil concentrates, it has been observed that highly refined vegetable oils are more satisfactory than unrefined vegetable oils. For additional information, see **Jar Test for Estimating Suitability of Oil Concentrate**.

Additive Rate:

Oil Concentrate: 1.0% v/v (2 pints per acre maximum).

Dash HC: use 0.5% v/v (1 pint per acre maximum).

Jar Test for Estimating Suitability of Oil Concentrate

1. **Water supply:** Use only water from intended source and at the source temperature.
2. **Amount of water in jar:** For 20 gallons per acre spray volume use 3 1/3 cups (800 ml) of water. For 10 gallons per acre spray volume, use 1 2/3 cups (400 ml) of water. For 5 gallons per acre spray volume, use 5/6 cup (200 ml) of water. For other spray volumes, adjust proportionately to above.

3. **Amount of herbicide and oil concentrate to add:** Add herbicide and oil concentrate at the rate of 1 teaspoon (5 ml) for each pint of recommended label rate.

4. **Add components in following sequence,** gently mixing between component additions:

- a) **Headline B**
- b) **Headline G** (and other emulsifiable concentrates when applicable)
- c) oil concentrate, **Dash HC**, **UAN**, or **AMS**

5. **Cap jar,** invert 10 cycles, let stand for 15 minutes, evaluate.

6. **Evaluation:** An ideal tank mix will be uniform; thus, the suitability of the oil concentrate is questionable if any of the following are observed:

- Free oil at the surface-film or globules.
- Flocculation-fine particles which may be suspended in the liquid or found as a precipitated layer at the bottom of the jar.
- Clabbering-thickening texture (coagulated) resembling yogurt or a curd-like texture as with cottage cheese.

Table 1: Maximum Weed Heights Controlled by Headline at 3.5 pints per acre (1.75 pints of Headline B per acre + 1.75 pints of Headline G per acre)

Broadleaves	Maximum Weed Height	Grasses	Maximum Weed Height	Perennials (top growth suppression)	Maximum Weed Height
Black Nightshade	1"	Barnyardgrass	4"	Canada Thistle ³	6"
Jocklebur [®]	8"	Broadleaf Signal Grass	4"	Johnsongrass ²	4"
Common Groundsel	2"	Crabgrass, Large ¹	2"	(Rhizome)	
Common Lambsquarters	5"	Smooth ¹	2"	Quackgrass ²	4"
Common Ragweed	4"	Foxtail, Giant	6"	Wirestem Muhly ²	4"
Eastern Black Nightshade	1"	Green	6"	Yellow Nutsedge ³	6"
Giant Ragweed	4"	Yellow	6"		
Jimsonweed	6"	Goosegrass	4"		
Kochia	4"	Johnsongrass	4"		
Ladysthumb	10"	(seedling)			
Morningglory, Annual	4"	Junglerice	4"		
Pennsylvania Smartweed	10"	Panicum, Browntop	4"		
Prickly Sida or Teaweed	2"	Fall	4"		
Redroot Pigweed	6"	Texas	4"		
Smallflower Morningglory	4"	Red Sprangletop	4"		
Smooth Pigweed	6"	Ryegrass, Annual	4"		
Tall Waterhemp	2"	Shattercane	4"		
Velvetleaf [®]	5"	Volunteer Corn	12"		
Vernice mallow	4"	Wild Oats	2"		
Wild Buckwheat	3"	Wild Proso Millet	8"		
Wild Mustard	4"	Witchgrass	4"		
Wild Sunflower	6"	Woolly Cupgrass ²	4"		

¹ Add 0.5-1 gallon of UAN or 2.5 pounds of AMS to control crabgrass.

² For regrowth or new germination follow up 10-14 days later with **Poast Plus**. Refer to **Poast Plus** label.

³ For regrowth or new germination follow up 10-14 days later with **Basagran**. Refer to **Basagran** label.

Restrictions and Limitations

Do not apply **Headline herbicides** to corn hybrids which are not specifically labeled as **SR** corn because severe crop injury will occur.

Over-the-top applications of **Headline** in **SR** corn may be made before corn reaches 12 inches in height.

Do not apply **Headline** more than once per season.

Do not apply **Headline** to **SR** corn within 60 days of harvest of corn grain or fodder.

Do not apply **Headline** to **SR** corn within 45 days of harvest of corn forage/ silage.

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

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

This product may not be mixed or loaded within 50 feet of intermittent streams or rivers, natural or impounded lakes or reservoirs. This product may not be applied aerially or by ground within 66 feet of the points where field surface water runoff enters perennial or intermittent streams or rivers or within 200 feet around natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66 foot buffer or set-back from runoff points must be planted to crop or seeded with grass or other suitable crop.

Where there are state and/or local requirements regarding atrazine use (including lower maximum rates and/or higher set-backs) which are different from the label, the more restrictive requirements apply.

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

For postemergence applications, if there has been no previous soil application, the maximum rate of atrazine from all sources is 2 pounds of active ingredient per acre. If there has been a previous soil application to that crop, do not exceed a total of 2.5 pounds of active ingredient per acre, per calendar year.

Do not apply more than a total of 4.5 pints of **Poast Plus** per acre per crop season.

Do not apply more than 2 pounds of bentazon a.i. (from all sources) per acre, per calendar year.

Do not apply **Headline** if rainfall is expected within 1 hour following application as weed control will probably be unsatisfactory.

Do not apply **Headline** if crop has been subjected to stressful conditions or crop injury produced by prior herbicide applications, hail damage, flooding, drought, unseasonable cold, or widely fluctuating temperatures as injury or unsatisfactory control may result.

If stress conditions are present, delay application to give plants a chance to recover.

Do not plant sugar beets or sunflowers the season following application.

Do not plant oats the season following the application of **Headline** in soil with a calcareous surface layer.

In the intermountain region of the United States, do not plant any other crop the year following the application of **Headline** except corn or sorghum.

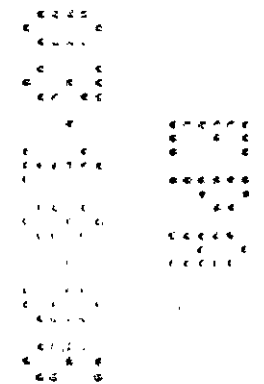
Procedure for Cleaning Equipment

Attention! Clean sprayer thoroughly before and after applying Headline.

Clean sprayer thoroughly prior to application of **Headline**, particularly if a herbicide was used which has the potential to injure the crop sprayed with **Headline**.

Consult the label of previously used herbicides for cleaning instructions. If no instructions are available, these steps listed below are suggested for cleaning of spray equipment prior to or following applications of **Headline**.

1. Hose down thoroughly the inside as well as the outside of equipment while filling the spray tank half full of water. Flush by operating sprayer until the system is purged of this rinse water.
2. Refill tank with water while adding 1 gallon household ammonia or 1 pint household dish washing detergent per 100 gallons of water. Or add a commercial sprayer cleaner according to the manufacturer's directions. Operate the pump to circulate the detergent solution through the sprayer system for 5 to 10 minutes and discharge a small amount of solution through the boom and nozzles. Let the solution stand for 24 hours.
3. Flush the detergent solution out of the spray tank through the boom.
4. Remove the nozzles and screens and flush the system with two tankfuls of water.



Appendix

The following are scientific names for the weeds listed in this section. For specific recommendations on control of these weeds, refer to the **Application Rate Table**.

Broadleaf Weeds

Common Name	Scientific Name
Barnyardgrass	<i>Echinochloa crus-galli</i>
Bindweed, Field	<i>Convolvulus arvensis</i>
Buckwheat, Wild	<i>Polygonum convolvulus</i>
Canada Thistle	<i>Cirsium arvense</i>
Cocklebur	<i>Xanthium strumarium</i>
Crabgrass, Large	<i>Digitaria sanguinalis</i>
, Smooth	<i>Digitaria ischaemum</i>
Cupgrass, Woolly	<i>Eriochloa villosa</i>
Foxtail, Giant	<i>Setaria faberi</i>
, Green	<i>Setaria viridis</i>
, Yellow	<i>Setaria glauca</i>
Goosegrass	<i>Eleusine indica</i>
Jimsonweed	<i>Datura stramonium</i>
Johnsongrass	<i>Sorghum halepense</i>
Junglerice	<i>Echinochloa colonum</i>
Kochia	<i>Kochia scoparia</i>
Ladysthumb	<i>Polygonum persicaria</i>
Lambsquarters, Common	<i>Chenopodium album</i>
Mallow, Venice	<i>Hibiscus trionum</i>
Millet, Wild Proso	<i>Panicum miliaceum</i>
Morningglory, Annual	<i>Ipomea spp.</i>
, Smallflower	<i>Jacquemontia tamnifolia</i>
Muhly, Wirestem	<i>Muhlenbergia frondosa</i>
Mustard, Wild	<i>Sinapis arvensis</i>
Nightshade, Black	<i>Solanum nigrum</i>
, Eastern Black	<i>Solanum ptycanthum</i>
Nutsedge, Yellow	<i>Cyperus esculentus</i>
Panicum, Browntop	<i>Panicum fasciculatu</i>
, Fall	<i>Panicum dichotomiflorum</i>
, Texas	<i>Panicum texanum</i>
Pennsylvania Smartweed	<i>Polygonum pennsylvanicum</i>
Pigweed, Redroot	<i>Amaranthus retroflexus</i>
, Smooth	<i>Amaranthus hybridis</i>
Quackgrass	<i>Agropyron repens</i>
Ragweed, Common	<i>Ambrosia artemisiifolia</i>
, Giant	<i>Ambrosia trifida</i>
Shattercane/Wildcane	<i>Sorghum bicolor</i>
Sida, Pricky or Teaweed	<i>Sida spinosa</i>
Signalgrass, Broadleaf	<i>Brachiaria platyphylla</i>
Sprangletop, Red	<i>Leptochloa filiformis</i>
Sunflower, Wild	<i>Helianthus annuus</i>
Velvetleaf	<i>Abutilon theophrasti</i>
Waterhemp, Tall	<i>Amaranthus tuberculatus</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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