

241-400

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**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:

Date of Issuance:

241-400

JAN 26 2010

**NOTICE OF PESTICIDE:**

Registration  
 Reregistration  
 (under FIFRA, as amended)

Term of Issuance:

Name of Pesticide Product:

Liquid Lightning 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. The "If swallowed" First Aid statement is optional for this product and may be removed.
  - c. Change the Hazards to Humans and Domestic Animals statement to read as follows:  
"CAUTION Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing."
  - d. Change the PPE sentence to read "Some materials that are chemical-resistant to this product **are made of any waterproof material.**"
  - e. Change the gloves PPE statement to read "Chemical-resistant gloves (except for pilots)".

Continued on Page 2

Signature of Approving Official:

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

Date:

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- f. 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."
- g. 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.
- h. On pages 5 & 6, change the sentence from "No label dosage rates may be exceeded." to "Do not exceed label dosage rates."
- i. On page 5, change the sentence to read "Applicator is responsible for any loss or damage which results from spraying Liquid Lightning in a manner other than **specified** in this label."
- j. On page 7, change the phrases from "recommended rate" to "specified rate" and from "recommended interval" to "specified interval".
- k. On page 8, change the pre-harvest interval statement to read "Do not harvest corn (silage, fodder, or grain) for 45 days after an application of Liquid Lightning."

The basic confidential statement of formula (CSF) dated December 19, 2008 is 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



The Chemical Company

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ACCEPTED  
with COMMENTS  
in EPA Letter Dated

JAN 26 2010

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

241-400

# Liquid Lightning®

herbicide

**FOR USE ON CLEARFIELD® CORN HYBRIDS ONLY**

**Active Ingredients:**

<b>imazethapyr:</b> (±)-2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-5-ethyl-3-pyridinecarboxylic acid]. . . . .	15.15%
<b>imazapyr:</b> 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-3-pyridinecarboxylic acid . . . . .	5.05%
<b>Other Ingredients:</b> . . . . .	<u>79.80%</u>
<b>Total:</b> . . . . .	100.00%

1 gallon contains 1.35 pounds of imazethapyr and 0.45 pound of imazapyr as the free acids.

**EPA Reg. No. 241-400**  
**U.S. Patent No. 4,798,619**

**EPA Est. No.**

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION/PRECAUCION**

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.)

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).**

**Net Contents:**

BASF Corporation  
26 Davis Drive, Research Triangle Park, NC 27709

FIRST AID	
<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 swallowed</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• <b>DO NOT</b> induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• <b>DO NOT</b> give anything by mouth to an unconscious person.</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.** Harmful if absorbed through skin or swallowed. Avoid contact with skin, eyes or clothing.

**Personal Protective Equipment (PPE)**

Some materials that are chemical resistant to this product are barrier laminate, butyl rubber, or polyethylene. If you want more options, follow the instructions for **Category A** on an EPA chemical-resistance category selection chart.

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

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves for all mixers and loaders, plus applicators using handheld equipment

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.

**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)].

**In Case of Emergency**

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

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- BASF Corporation 1-800-832-HELP (4357)

**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.

**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.

**Groundwater Advisory and Proper Handling Instructions**

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.

This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sinkholes, perennial or intermittent streams and rivers, and natural or impounded lakes or reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or washwater, and rainwater that may fall on the pad.

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Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal.

An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities **DO NOT** apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

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

Product must be used in a manner which will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsate.

### DIRECTIONS FOR USE

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.

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

Observe all cautions and limitations on this label and on the labels of products used in combination with **Liquid Lightning® herbicide**. **DO NOT** use **Liquid Lightning** other than in accordance with the instructions set forth on this label. The use of **Liquid Lightning** not consistent with this label may result in injury to crops.

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

### 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 **48 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
- Shoes plus socks
- Chemical-resistant gloves made of any waterproof material
- Protective eyewear

### STORAGE AND DISPOSAL

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

**Pesticide Storage.** KEEP FROM FREEZING. **DO NOT** store below 20° F.

**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

**Nonrefillable Container. DO NOT reuse or refill this container.** Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

**Triple rinse containers small enough to shake (capacity ≤ 5 gallons) as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

**Triple rinse containers too large to shake (capacity > 5 gallons) as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds.

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Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Repeat this procedure two more times.

**Pressure rinse as follows:** Empty the remaining contents into application equipment or mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

## GENERAL INFORMATION

**Liquid Lightning® herbicide** can be applied postemergence (including spike stage) on **CLEARFIELD®** corn hybrids. Apply only on selected field corn hybrids (**CLEARFIELD** corn) warranted by the seed company to possess resistance/tolerance to direct application of certain imidazolinone herbicides. **DO NOT** apply

**Liquid Lightning** to corn hybrids that lack resistance/tolerance to imidazolinone herbicides. Contact your seed supplier, chemical dealer or BASF to obtain information regarding **CLEARFIELD** corn hybrids.

**Liquid Lightning** kills weeds by root and/or foliar uptake and rapid translocation to the growing points. Adequate soil moisture is important for optimum **Liquid Lightning** activity. When adequate soil moisture is present, **Liquid Lightning** will provide residual control of susceptible germinating weeds; activity on established weeds will depend on the weed species and the location of its root system in the soil.

Use of **Liquid Lightning** in accordance with label directions is expected to result in normal growth of rotational crops in most situations. However, various environmental and agronomic factors make it impossible to eliminate all risks associated with the use of this product and, therefore, rotational crop injury is always possible. Under some conditions (such as heavy texture soil, high organic matter, low pH or low rainfall) **Liquid Lightning** may cause injury to subsequent planted crops. See **ROTATIONAL CROPS** section of this label for recommended rotation intervals to sensitive crops.

Crops growing under stressful environmental conditions can exhibit various injury symptoms that may be more pronounced if herbicides are used. Corn plants treated with **Liquid Lightning** may exhibit yellowing on new growth. Such effects occur infrequently and are temporary. Normal growth and appearance should resume within 1 to 2 weeks.

Naturally occurring biotypes\* of some of the weeds listed on this label may not be effectively controlled by this and/or other products with the ALS/AHAS enzyme-inhibiting mode of action. Other herbicides with the ALS/AHAS enzyme-inhibiting mode of action include the imidazolinones (e.g. **Pursuit® herbicide**, **Scepter® herbicide**, etc.), the sulfonylureas (e.g. **Accent®**, **Basis®**, **Classic®**, **Concert®**, **Permit®**, **Pinnacle®**, etc.) the sulfonamides (e.g. **Broadstrike®**, etc.) and the pyrimidyl benzoates (e.g. **Staple®**, etc.). If naturally occurring biotypes are present in a field which are resistant to this herbicide,

**Liquid Lightning** should be tank mixed or applied sequentially with an appropriate registered herbicide having a different mode of action to ensure control.

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

**Replanting:** If replanting is necessary in a field previously treated with **Liquid Lightning**, the field may be replanted only to **CLEARFIELD** corn. Rework the soil no deeper than the treated zone. **DO NOT** apply a second treatment of **Liquid Lightning**.

## MIXING INSTRUCTIONS

POSTEMERGENCE APPLICATIONS OF **Liquid Lightning** REQUIRE THE ADDITION OF A SURFACTANT AND A NITROGEN FERTILIZER SOLUTION¹.

### SURFACTANTS cleared for application to growing crops

Use a nonionic surfactant containing at least 80% active ingredient. Apply the surfactant at the rate of 1 quart per 100 gallons. An organo-silicone surfactant may be used in place of a nonionic surfactant.

AND

### FERTILIZER

Recommended nitrogen-based fertilizers include liquid fertilizers (such as 28%N, 32%N or 10-34-0) at the rate of 1 to 2 quarts per acre. Use the higher rate when weeds are under moisture or temperature stress. Instead of a liquid fertilizer, spray grade ammonium sulfate may be used at the rate of 2.5 pounds per acre.

Fill the spray tank one-half to three-fourths full with clean water. Add the required amount of **Liquid Lightning** to the spray tank while agitating. After the **Liquid Lightning** has visibly dispersed, add adjuvants and fill the remainder of the tank with water. An antifoam agent may be added if needed.

**DO NOT** use liquid fertilizer as a carrier for postemergence applications of **Liquid Lightning**.

¹**Liquid Lightning** applications may be made with a nonionic surfactant only (liquid fertilizer not required) in the bootheel of Missouri, Tennessee, South Carolina, Louisiana, Georgia, Arkansas, Mississippi, Alabama, Florida, and North Carolina.

## TANK MIX COMBINATIONS WITH OTHER HERBICIDES

When tank mixing **Liquid Lightning® herbicide** with recommended herbicides, add the other herbicides and other components in the following order, while agitating:

1. Fill spray tank 1/2 to 3/4 full with clean water.
2. Add soluble packet products and thoroughly mix.
3. Add WP (wetttable powder), DG (dispersible granule), DF (dry flowable), or LF (liquid flowable) formulations not in soluble packets.
4. Add **Liquid Lightning** and thoroughly mix.
5. Add other aqueous solution products.
6. Add EC (emulsifiable concentrate) products.
7. Add surfactant to the spray tank.
8. Add liquid fertilizer.
9. While agitating, fill the remainder of the tank with water.

When **Liquid Lightning** is used in combination with another herbicide, refer to the respective label for rates, methods of application, proper timing, weeds controlled, restrictions and precautions. Always use in accordance with the more restrictive label restrictions and precautions. No label dosages should be exceeded.

## PROCEDURE FOR CLEANING SPRAY EQUIPMENT

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

## SPRAYING INSTRUCTIONS

### 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.

**Ground Applications.** Uniformly apply with properly calibrated ground equipment in 10 or more gallons of water per acre. A spray pressure of 20 to 40 psi is recommended. (See **SENSITIVE CROP PRECAUTIONS** section for application guidelines near sensitive crops.)

To ensure thorough coverage a minimum of 10 gallons of water per acre is recommended when applying **Liquid Lightning** to minimum till or no-till **CLEARFIELD®** corn. Use higher gallonage for fields with dense vegetation or heavy crop residues. Flat-fan nozzle tips are recommended for postemergence applications.

Avoid overlaps when spraying.

### 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.

**Aerial Applications.** Uniformly apply with properly calibrated aerial equipment in 5 or more gallons of water per acre. Addition of a nonionic surfactant **AND** fertilizer solution are required for optimum weed control; apply a non-ionic surfactant at the rate of 1 quart per 100 gallons of spray mixture **AND** a liquid fertilizer at the rate of 1 quart per acre. (See directions under **MIXING INSTRUCTIONS**.)

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

- Nozzles must be pointed toward the rear of the aircraft. The downward angle of the nozzle should not be greater than 20 degrees.
- Use a maximum spray pressure of 40 psi.
- A buffer zone must be established between the area to be sprayed and sensitive crops.

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

## SENSITIVE CROP PRECAUTIONS

**Liquid Lightning** may cause injury to desirable trees and plants, particularly beans, cotton, flowers, fruit trees, grapes, ornamentals, peas, potatoes, soybeans, sugar beets, sunflowers, tobacco, tomatoes and other broadleaf plants when contacting their roots, stems or foliage. These plants are most sensitive to **Liquid Lightning** during their development or growing stage. FOLLOW THE PRECAUTIONS LISTED BELOW WHEN USING **Liquid Lightning**.

- **DO NOT** treat areas where either possible downward movement into the soil or surface washing may cause contact of **Liquid Lightning** with roots of desirable plants such as trees and shrubs.
- Avoid making applications when spray particles may be carried by air currents to areas where sensitive crops and plants are growing. **DO NOT** spray near sensitive plants if wind is gusty or in excess of 5 mph and moving in the direction of nearby sensitive crops. However, always make applications when there is some air movement to determine the direction and distance of possible spray

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drift. Leave an adequate buffer zone between area to be treated and sensitive plants. Coarse sprays are less likely to drift out of the target area than fine sprays.

- Use coarse sprays to avoid potential herbicide drift. Select nozzles which are designed to produce minimal amounts of fine spray particles such as Spraying Systems XR flat fans. A spray pressure of 20 psi and spray volume at or above 20 gpa are recommended to reduce drift to sensitive crops.
- Agriculturally approved drift-reducing additives may be used.
- To avoid injury to desirable plants, equipment used to apply **Liquid Lightning**® herbicide should be thoroughly cleaned (see **PROCEDURE FOR CLEANING SPRAY EQUIPMENT**) before reusing to apply any other chemicals.

#### USE RATE

Apply **Liquid Lightning** at a broadcast rate of 4 fluid ounces per acre. At this broadcast rate, one gallon of **Liquid Lightning** will treat 32 acres of **CLEARFIELD**® corn.

**NOTE:** Only one application of **Liquid Lightning** may be made during the growing season.

Not for use in California or New York.

**Liquid Lightning** should be applied a minimum of one hour before rainfall or overhead irrigation.

#### SEQUENTIAL HERBICIDE COMBINATIONS WITH LIQUID LIGHTNING

**Liquid Lightning** controls many grass species. However, when heavy grass pressure is anticipated, a soil application of any grass herbicide underlay (such as **Prowl**®, **Axiom**®, **Dual II Magnum**®, **Epic**®, **Eradicane**®, **Harness**®, or **Surpass**®) is recommended. **Liquid Lightning** may also be used in sequential programs with registered burndown herbicides.

#### TANK MIX HERBICIDE COMBINATIONS WITH LIQUID LIGHTNING

##### Recommended Tank Mix Postemergence Applications of Liquid Lightning

2,4-D	<b>FulTime</b> ®
atrazine	<b>Guardsman Max</b> ®
<b>Banvel</b> ®	<b>Harness</b> ®
<b>Basagran</b> ®	<b>Harness Xtra</b>
<b>Bicep II Magnum</b> ®	<b>Marksman</b> ®
<b>Bicep Lite II Magnum</b> ®	<b>Prowl</b> ®
<b>Buctril</b> ®	<b>Shotgun</b> ®
<b>Buctril</b> ® + atrazine	<b>Surpass</b> ®
<b>Clarity</b> ®	<b>TopNotch</b> ®
<b>Dual II Magnum</b> ®	

**Liquid Lightning** is active against many broadleaf and grass species. For long-term weed management, use two herbicides with different modes of action to reduce the potential for weed resistance.

When **Liquid Lightning** is used in combination with another herbicide, refer to the respective label for rates, methods of application, proper timing, weeds controlled, restrictions and precautions. Always use in accordance with the more restrictive label restrictions and precautions. No label dosages should be exceeded.

#### WEEDS CONTROLLED

When applied as directed at the broadcast rate of 4 fluid ounces per acre, **Liquid Lightning** will control or reduce competition from the weeds listed in **Table 1**.

NOTE: R = Reduced Competition

The number under Leaf Stage indicates the MAXIMUM number of leaves at which weeds should be sprayed postemergence.

#### APPLICATION INSTRUCTIONS

**Liquid Lightning** is effective in controlling weeds in conservation tillage as well as in conventional production systems. Ensure that all weeds are controlled by tillage or burndown herbicide prior to planting corn. Apply **Liquid Lightning** as a postemergence treatment to **CLEARFIELD** corn when crop and weeds are actively growing. For optimal weed control, apply **Liquid Lightning** before weeds exceed labeled height. If the corn is greater than 20-inches tall or if the crop canopy prevents adequate weed coverage, **Liquid Lightning** must be applied with drop nozzles, post-directed onto weeds. **DO NOT** apply within 45 days of harvest. More restrictive crop growth stage limitations of tank mix partners must be followed.

A nonionic surfactant and a liquid fertilizer must be added to the spray solution for optimum weed control activity. See additive information under **MIXING INSTRUCTIONS** for specific instructions.

For maximum weed control, cultivate 7 to 10 days following **Liquid Lightning** application. This timely cultivation will enhance residual weed control, especially under dry conditions.

If air temperatures reach or stay below 50° F for 10 or more hours, delay a **Liquid Lightning** application for 48 hours from the time temperatures increase above 50° F. Unusually cool temperatures (50° F or less) reduce photosynthesis and transpiration and thus reduce the uptake and translocation (and effectiveness) of **Liquid Lightning** in weeds and may enhance crop response.



## Weeds Controlled

Broadleaf Weeds	POSTEMERGENCE	
	Leaf Stage (up to)	Maximum Height (inches)
Alligator weed	4	1-3
Anoda, spurred	2	1-2
Artichoke, Jerusalem	8	6-10
Buckwheat, wild	4	1-3
Buffalobur	4	1-3
Bristly starbur	2	1-2
Carpetweed	4	1-3
Cocklebur, common	8	1-8
Field bindweed,	R	1-3
Jimsonweed	4	1-3
Knotweed	4	1-3
Kochia (non-ALS resistant)	4	1-3
Lambsquarters, common	4	1-3
Marshelder	4	1-3
Milkweed, honeyvine	4	1-3
Morningglory		
entireleaf	2	1-2
ivyleaf	4	1-3
pitted	2	1-2
smallflower	4	1-3
tall	4	1-3
Mustard sp.	4	1-3
Nightshade		
black	4	1-3
Eastern black	4	1-3
hairy	4	1-3
Pigweed		
Palmer	4	1-3
prostrate	8	1-8
redroot	8	1-8
smooth	8	1-8
spiny	8	1-8
Ragweed		
common	R	1-3
giant	4	1-3
Sage, barnyard	R	1-3
Sicklepod*	4	1-3
Sida, prickly	4	1-3
Smartweed		
ladysthumb	4	1-3
Pennsylvania	4	1-3
Spurge		
prostrate	4	1-3
spotted	4	1-3
Sunflower	4	1-3
Velvetleaf	4	1-3
Venice mallow	4	1-3
Thistle, Canada	R	1-3

**DO NOT** count cotyledon leaves when determining weed stage of growth.

\*Additional applications of other broadleaf herbicides may be necessary to control subsequent flushes of sicklepod.

## Weeds Controlled (continued)

Grass Weeds and Sedges	POSTEMERGENCE	
	Leaf Stage (up to)	Maximum Height (inches)
Barnyardgrass	3	1-3
Crabgrass		
large	3	1-3
smooth	3	1-3
Cupgrass, woolly	3	1-3
Foxtail		
giant	6	1-6
green	3	1-3
yellow	3	1-3
Goosegrass	3	1-3
Johnsongrass		
seedling	6	1-8
rhizome	R	1-8
Millet, wild proso	3	1-3
Nutsedge		
purple	R	1-3
yellow	R	1-3
Panicum, fall	3	1-3
Quackgrass	3	1-3
Red rice	3	1-3
Sandbur, field	3	2
Shattercane	6	1-8
Signalgrass, broadleaf	4	1-8
Sorghum alnum	6	1-3
Volunteer corn (non-CLEARFIELD® corn)	8	1-12
Wild oat	6	1-8
Witchgrass	3	1-3

## ROTATIONAL CROPS

The following rotational crops may be planted after applying **Liquid Lightning® herbicide** at the recommended rate in corn. Planting earlier than the recommended interval may result in crop injury.<sup>1</sup>

- Anytime:  
**CLEARFIELD** corn hybrids
- Four months after **Liquid Lightning** application:  
Rye  
Wheat
- Eight and one-half months after **Liquid Lightning** application:  
Field corn  
Field corn grown for seed<sup>1</sup>
- Nine months  
Soybeans

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5: Nine and one-half months after **Liquid Lightning**® herbicide application:

- Alfalfa
- Barley
- (see exceptions in eighteen-month section below)
- Edible beans and peas
- Peanuts
- Tobacco

6. Eighteen months after **Liquid Lightning** application:

- Barley
- (Idaho, Montana, Oregon, Washington and Wyoming only)
- Cotton
- Lettuce
- Oats
- Popcorn
- Safflower
- Sorghum
- Sunflowers
- Sweet corn

7. Twenty-six months after **Liquid Lightning** application:

- Potatoes

8. Forty months after **Liquid Lightning** application:

All crops not listed elsewhere in **ROTATIONAL CROPS**.

<sup>1</sup>See **EXCEPTIONS TO ROTATIONAL CROPS GUIDELINES**.

Following forty months after a **Liquid Lightning** application, and before any crop not listed in **ROTATIONAL CROPS**, a successful field bioassay must be completed. The field bioassay consists of a test strip of the intended rotational crop planted across the previously treated field and grown to maturity. The test strip should include low areas and knolls, and include variations in soil such as type and pH. If no crop injury is evident in the test strip, the rotational crop may be planted the following year.

If the field is limed to adjust pH prior to planting rotational crops not listed in **ROTATIONAL CROPS**, apply the lime at least 12 months prior to planting the rotational crop.

**EXCEPTIONS TO ROTATIONAL CROPS GUIDELINES**

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

**Corn inbred lines:** Corn inbred seed lines may be planted the year following an application of **Liquid Lightning**. Due to the proprietary nature of seed production, BASF has not been given access to the inbred data. Growers are directed to contact the seed company for information and recommendations regarding the planting of corn grown for seed in fields treated with **Liquid Lightning** the previous year. Because growing conditions, environmental conditions, and grower practices are beyond the control of BASF, **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ALL RISKS AND CONSEQUENCES ASSOCIATED WITH PLANTING SEED CORN INBREDS INTO FIELDS TREATED PREVIOUSLY WITH LIGHTNING SHALL BE ASSUMED BY THE USER.**

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

**PRECAUTIONS**

In the event of a crop loss due to weather, **CLEARFIELD**® corn seed hybrids can be replanted following an application of **Liquid Lightning**. If **Liquid Lightning** was tank mixed with other herbicides, the label restrictions for these herbicides must also be followed.

There should be an interval of at least 45 days between an application of **Liquid Lightning** and corn harvest (silage, fodder, or grain). **DO NOT** graze or feed treated corn forage, silage, fodder, or grain for at least 45 days after an application of **Liquid Lightning**.

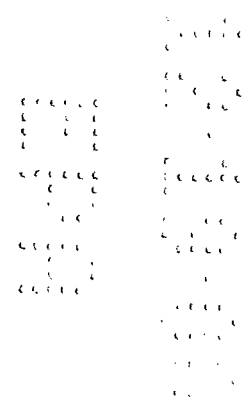
Only rotational crops harvested at maturity may be used for feed or food.

BASF recommends products containing imazethapyr (**Pursuit**® herbicide, **Pursuit**® Plus EC herbicide) NOT be applied to **CLEARFIELD** corn the same year as **Liquid Lightning** or injury to followcrops may occur.

All soil insecticides, including labeled banded or infurrow applications, may be used in combination with **CLEARFIELD** corn hybrids and **Liquid Lightning**.

Terbufos may be applied to **CLEARFIELD** corn hybrids with an at-cultivation treatment 7 days or more after **Liquid Lightning** has been applied. BASF has not tested all hybrids in which the imidazolinone tolerance trait is claimed and cannot be responsible for factors which are beyond its control, such as growing conditions, environmental conditions, grower practices and the specific genetics of each hybrid tolerance to herbicide and insecticide applications.

This label must be in the possession of the user at the time of herbicide application.



## 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.

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**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, EXEMPLARY, 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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### Uses with Other Products (Tank Mixes)

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

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