U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Registration Division (7505T) 1200 Pennsylvania Ave., N.W. Washington, D.C. 20460	EPA Reg. Number: 7969-502	Date of Issuance: 2/8/24		
NOTICE OF PESTICIDE: <u>X</u> Registration Reregistration	Term of Issuance: Conditional			
(under FIFRA, as amended)	Name of Pesticide Product: Saflufenacil CS Herbicide			
Name and Address of Registrant (include ZIP Code): BASF Corporation 26 Davis Drive, PO Box 13528 Research Triangle Park, NC 27709				
Note: Changes in labeling differing in substance from that accepted in connection with this registrat Registration Division prior to use of the label in commerce. In any correspondence on this product a	ion must be submitted to a Nways refer to the above El	nd accepted by the PA registration number.		
On the basis of information furnished by the registrant, the above under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFR	named pesticide is A).	s hereby registered		
Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.				
This product is conditionally registered in accordance with FIFRA section 3(c)(7)(B). You must comply with the following conditions:				
<ol> <li>Submit and/or cite all data required for registration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.</li> </ol>				
		Continues page 2		
Signature of Approving Official:	Date:			
Andry M	2/8/24			
Lindsay Roe, Chief Herbicide Branch, Registration Division (7505T) EPA Form 8570-6				

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- 2. You are required to comply with the data requirements described in the generic data call-in (GDCI) order identified below:
  - a. Saflufenacil GDCI-118203-1837

You must comply with all of the data requirements within the established deadlines. If you have questions about the GDCI Order listed above, you may contact the Chemical Review Manager in the Pesticide Re-Evaluation Division: http://iaspub.epa.gov/apex/pesticides/f?p=chemicalsearch:1

- 3. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 7969-502."
- 4. Submit one copy of the final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance. If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

The record for this product currently contains the following CSF:

• Basic CSF dated 10/5/2022

If you have any questions, please contact Endia Blunt at 202-566-2505 or at blunt.endia@epa.gov.

Enclosure



Saflufenacil Group 14 Herbicide

### **A C C E P T E D** 02/08/2024

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 7969-502

# Saflufenacil CS Herbicide

#### For residual preemergence weed control in field corn

Active Ingredient:

saflufenacil: N'-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-(trifluoromethyl)-3,	
6-dihydro-1(2H)-pyrimidinyl)benzoyl]-N-isopropyl-N-methylsulfamide	11.82%
Other Ingredients:	88.18%
Total:	100.00%
Contains 1.085 pounds active ingredient saflufenacil per gallon formulated as a water-based capsule suspension concentrate	

EPA Reg. No. 7969-XXX

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

See full label for complete **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:** 

FIRST AID		
If swallowed	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>DO NOT induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>DO NOT give anything by mouth to an unconscious person.</li> </ul>	
If inhaled	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably by mouth to mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>	
If in eyes	<ul> <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 for treatment advice.</li> </ul>	
If on skin or clothing	<ul> <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>	
HOTLINE NUMBER		
- Llave the preduct container or lebel with you when colling a poince control contary or dector or coinc for tractment		

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 at 1-800-832-HELP (4357).

#### **Precautionary Statements**

#### Hazards to Humans and Domestic Animals

**CAUTION.** Harmful if swallowed or if inhaled. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

#### Personal Protective Equipment (PPE)

#### Applicators and other handlers must wear:

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

Follow the 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**

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 170.607(d-f)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for **applicators and other handlers** and have such PPE immediately available for use in an emergency, including a spill or equipment breakdown.

#### USER SAFETY RECOMMENDATIONS

#### Users should:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. If pesticide gets on skin, wash immediately with soap and water.
- 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**

**DO NOT** apply directly to water, areas where surface water is present, or intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment washwater or rinsate.

**Groundwater Advisory.** Saflufenacil has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

**Surface Water Advisory.** Saflufenacil may impact surface water due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow groundwater. This product is classified as having high potential for reaching surface water via runoff for several weeks after application. A level, well-maintained buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential loading of this chemical from runoff water and sediment. Runoff of this product will be reduced by avoiding application when rainfall is forecast to occur within 48 hours.

#### Endangered Species Protection Requirements

This product may have effects on federally listed threatened or endangered plant species or their critical habitat. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the county or parish in which you are applying the pesticide. To determine whether your county or parish has a Bulletin, and to obtain that Bulletin, consult http://www.epa.gov/espp/, or call 1-844-447-3813 no more than 6 months before using this product. Applicators must use Bulletins that are in effect in the month in which the pesticide will be applied. New Bulletins will generally be available from the above sources 6 months before their effective dates.

#### **Directions For Use**

It is a violation of federal law to use this product in a manner inconsistent with its labeling. This labeling must be in the possession of the user at time of herbicide application.

**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.

Observe all precautions and restrictions in this label and the labels of products used in combination with **Saflufenacil CS herbicide**. The use of **Saflufenacil CS** not consistent with this label can result in injury to crops, animals or persons. Keep containers closed to avoid spills and contamination.

BASF Corporation does not recommend or authorize the use of this product in manufacturing, processing or preparing custom blends with other products for application in crops.

#### AGRICULTURAL USE REQUIREMENTS

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

**DO NOT** enter or allow worker entry into treated areas during the restricted-entry interval (REI) of **12 hours**.

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

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

- Coveralls
- Waterproof gloves
- Shoes plus socks

#### STORAGE AND DISPOSAL

**DO NOT** contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

#### **Pesticide Storage**

**DO NOT** use or store near heat or open flame. Store in original container in a well-ventilated area separately from fertilizer, feed, or foodstuffs. Avoid cross-contamination with other pesticides.

#### **Pesticide Disposal**

Wastes resulting from this product must be disposed of on-site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mix, or rinsate is a violation of federal law. If these wastes cannot be disposed of according to label instructions, contact the state agency responsible for pesticide regulation or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

#### **Container Handling**

**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 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.

**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.

#### In Case of Emergency

In case of large-scale spill of 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)
- or hotline at 1-800-222-1222
- BASF Corporation 1-800-832-HELP (4357)

#### Steps to take if material is released or spilled:

- Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.
- Remove contaminated clothing and wash affected skin areas with soap and water.
- Wash clothing before reuse.
- Keep the spill out of all sewers and open bodies of water.

#### **Product Information**

**Saflufenacil CS herbicide** provides rate-dependent residual preemergence broadleaf weed control (refer to **Table 1** for list). It can be used in field corn (grain, seed, silage), fallow, and postharvest croplands.

**Saflufenacil CS** does not control grass weeds and must be used sequentially or tank mixed with a grass herbicide for a complete weed control program.

Residual preemergence applications of **Saflufenacil CS** must be activated by at least 1/2 inch of rainfall or sprinkler irrigation before weed seedling emergence. When **Saflufenacil CS** is not activated, a labeled postemergence herbicide or cultivation may be needed to control weed escapes.

## Table 1. Broadleaf Weeds Controlled with a Residual Preemergence Application of Saflufenacil CS herbicide

Common Name	Scientific Name	C = Control S = Suppression <sup>1</sup>
Amaranth, Palmer	Amaranthus palmeri	С
Amaranth, Powell	Amaranthus powellii	С
Beggarweed, Florida	Desmodium tortuosum	С
Buckwheat, wild	Polygonum convolvulus	С
Burcucumber	Sicyos angulatus	S
Canola, volunteer (rapeseed) <sup>2</sup> , all types	Brassica spp.	С
Carpetweed	Mollugo verticillata	С
Chickweed, common	Stellaria media	С
Cocklebur, common	Xanthium strumarium	С
Copperleaf, Virginia	Acalypha virginica	С
Galinsoga, smallflower	Galinsoga parviflora	С
Groundcherry, cutleaf	Physalis angulata	С
Horseweed (marestail)	Conyza canadensis	С
Jimsonweed	Datura stramonium	С
Kochia	Kochia scoparia	С
Ladysthumb	Polygonum persicaria	С
Lambsquarters, common	Chenopodium album	С
Mallow, Venice	Hibiscus trionum	С
Marestail (horseweed)	Conyza canadensis	С
Morningglory, entireleaf	Ipomoea hederacea var. integriuscula	С
Morningglory, ivyleaf	Ipomoea hederacea	С
Morningglory, pitted	Ipomoea lacunosa	С
Morningglory, tall	Ipomoea purpurea	С
Mustard, wild	Sinapis arvensis	С
Nightshade, black	Solanum nigrum	С
Pennycress, field	Thlaspi arvense	С
Pigweed, prostrate	Amaranthus blitoides	С
Pigweed, redroot	Amaranthus retroflexus	С
Pigweed, smooth	Amaranthus hybridus	С
Pigweed, tumble	Amaranthus albus	С
Puncturevine	Tribulus terrestris	S
Purslane, common	Portulaca oleracea	С
Pusley, Florida	Richardia scabra	S
Ragweed, common	Ambrosia artemisiifolia	С
Ragweed, giant	Ambrosia trifida	С
Sida, prickly	Sida spinosa	С
Smartweed, Pennsylvania	Polygonum pensylvanicum	С
Starbur, bristly	Acanthospermum hispidum	С
Sunflower, common	Helianthus annuus	С
Texasweed	Caperonia palustris	С
Thistle, Russian	Salsola kali	С
Velvetleaf	Abutilon theophrasti	С
Waterhemp	Amaranthus tuberculatus	С

<sup>1</sup> Use **Saflufenacil CS** in tank mixes or sequential applications with other labeled herbicides that provide additional control of noted weeds. <sup>2</sup> Not controlled in California

#### Mode of Action

**Saflufenacil CS herbicide** is a potent inhibitor of protoporphyrinogen-oxidase belonging to herbicide mode of action **Group 14** (WSSA). **Saflufenacil CS** is rapidly absorbed by roots and foliage. Following inhibition of protoporphyrinogen-oxidase, plant death is the result of membrane damage. Under active growing conditions, susceptible emerged weeds usually develop chlorotic and necrotic injury symptoms within hours and die within a few days. Susceptible emerging weed seedlings usually die as they reach the soil surface or shortly after emergence.

#### Herbicide Resistance Management

While weed resistance to **Group 14** herbicides are relatively infrequent, populations of resistant biotypes are known to exist. The frequency of resistant biotypes may increase if **Group 14** herbicides are used repeatedly in the same field or in successive years as the primary control of the targeted species. If resistant biotypes dominate the weed population, it may result in partial or total loss of control by other **Group 14** herbicides. Weeds resistant to **Group 14** herbicides may be effectively managed using herbicide(s) from a different group.

To aid in the prevention of developing resistant weeds, the following herbicide resistance management principles should be followed where practicable:

- Resistance management should be part of a diversified weed control strategy that integrates chemical, cultural, and mechanical (tillage) control tactics. Cultural control tactics include crop rotation, proper fertilizer placement, and optimum seeding rate/row spacing. Start with clean fields using tillage or an effective burndown herbicide program. These practices encourage crop growth and improve competitiveness against weeds.
- Clean equipment before moving to a different field to avoid spread of resistant weeds.
- Scout fields before application to ensure herbicides and rates will be appropriate for the weeds species and weed sizes present.
- Always follow labeled application rate and weed growth stage specifications.
- Use sequential programs with preemergence herbicides that provide soil residual control of weeds to reduce early season weed competition and allow for timely in-crop postemergence herbicide applications.
- **DO NOT** rely on a single herbicide site of action for weed control during the growing season.
- Avoid application of herbicides with the same site of action more than twice a season.
- Use tank mixes or premixes with other herbicides possessing different sites of action that are also effective on the target weeds.
- Scout fields after herbicide application to identify areas where weed control was ineffective.

- Control weed escapes with herbicides possessing a different site of action or use a mechanical control measure. Weed escapes should not be allowed to reproduce by seed or to proliferate vegetatively.
- Contact your **Saflufenacil CS** supplier and/or your local BASF representative to report weed escapes.
- Consult your local BASF representative, local or state cooperative extension service, professional consultants or crop advisors, or other qualified authority to determine appropriate actions if you suspect resistant weeds.
- Suspected herbicide-resistance weeds may be identified by these indicators:
  - failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
  - a spreading patch on non-controlled plants of a particular weed species; or
  - surviving plants mixed with controlled individuals of the same species.

#### **Crop Tolerance**

Crops listed on this label are tolerant to **Saflufenacil CS** when applied according to label directions and under normal environmental conditions. Crop injury may occur under stressful growing conditions (e.g. mechanical injury, low soil fertility, seedling disease, extreme hot or cold weather, widely fluctuating temperatures, excessive moisture, high soil pH, high soil salt concentration, or drought).

#### **Application Instructions**

**Saflufenacil CS** may be applied before or after crop emergence.

#### **Application Rates**

Application rates of **Saflufenacil CS** may vary depending on soil texture and organic matter. Refer to **Table 2** for soil texture groups used in this label.

#### **Table 2. Soil Texture Groups**

Coarse	Medium	Fine
Sand Loamy sand Sandy loam	Silt Silt Ioam Loam Sandy clay Ioam	Sandy clay Silty clay Silty clay loam Clay loam Clay

Refer to the **Crop-specific Information** section for specific application rate, timing, and restrictions and limitations by crop and use pattern.

#### Table 3. Use Rate Equivalency

Saflufenacil CS herbicide Use Rate (fl ozs/A)	Amount of Saflufenacil (lb ai/A)
5.3	0.045
6.6	0.056
7.9	0.067
10.5	0.089
15.8	0.134

#### **Application Timing**

**Saflufenacil CS** may be applied preplant surface, preplant incorporated, preemergence, or early

postemergence. Refer to the **Crop-specific Information** section for specific application instructions (timings, rates, restrictions and precautions) by crop.

Preplant Surface Application. Apply Saflufenacil CS

alone or in tank mix within 30 days of planting. If weeds are present at the time of application, use additional weed control methods, for example a tank mix with an appropriate postemergence herbicide(s), to control emerged weeds.

**Preplant Incorporated (PPI) Application.** Incorporate **Saflufenacil CS** into the upper (1 to 2 inches) soil surface within 14 days of planting. Deeper incorporation may increase the potential for crop injury and also may result in reduced weed control. Use appropriate equipment for uniform shallow incorporation, including a field cultivator, harrow, rolling cultivator, or finishing disc.

**Preemergence Surface Application.** After planting and before crop emergence, apply a uniform broadcast treatment to the soil surface. Apply **Saflufenacil CS** only to a uniform seedbed which is firm and free of clods, cracks, excess trash (previous crop residue), and weed growth. If weeds are present, apply **Saflufenacil CS** in a tank mix with an appropriate postemergence herbicide, for example a glyphosate-containing product.

#### Early Postemergence Application. Saflufenacil CS

must be applied and activated before weed seedling emergence or in a tank mixture that controls emerged weeds. **Saflufenacil CS** will not control emerged weeds. Weeds that are already emerged at the time of application must be controlled with cultivation, tank mix or sequential application of another herbicide labeled for postemergence control of the target weeds in the crop.

#### **Application Methods and Equipment**

**Saflufenacil CS** may be applied by ground or air. Thorough spray coverage is required for optimum broadleaf weed control and can be improved with proper adjuvant, nozzle, and spray volume selection.

Use and configure application equipment for adequate spray volume, accurate and uniform distribution of spray droplets over the treated area, and to avoid spray drift to nontarget areas. Adjust equipment to maintain continuous agitation during spraying with good mechanical or bypass agitation. Avoid overlaps that will increase rates above use rates specified in this label.

**Saflufenacil CS** may be applied using water or sprayable fluid nitrogen fertilizer solutions as the spray carrier. Additionally, **Saflufenacil CS** may be impregnated on and applied with dry bulk fertilizer.

#### Aerial Application Requirements -Helicopter

Water Volume. Use 15 or more gallons of water per acre.

Applicators must follow these requirements to reduce the potential of spray drift to nontarget areas from aerial application with helicopter:

- 1. The distance of the outermost nozzles on the boom must not exceed 75 to 80% of rotor blade diameter.
- Use Accu-Flo<sup>™</sup> .028 nozzles or larger. DO NOT use nozzles producing a smaller droplet size than Accu-Flo .028.
- 3. Orient nozzles so spray is released parallel to the airstream.
- 4. Without compromising aircraft safety, applications should be made at a height of 10 feet or less above the target vegetative canopy.
- 5. **DO NOT** apply when wind speed is greater than 10 miles per hour, during periods of temperature inversions or stable atmospheric conditions.
- 6. Avoid potential adverse effects to nontarget areas by maintaining a 50-foot buffer between the point of direct application and the **closest downwind edge** of sensitive terrestrial habitats (grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas, shrub lands, and crop lands).

#### Aerial Application Requirements -Fixed-wing Aircraft

**Water Volume.** Use 3 or more gallons of water per acre for weed control application.

Applicators must follow these requirements to reduce the potential of spray drift to nontarget areas from aerial application:

- 1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the fixed wingspan.
- 2. Use low-drift nozzles (straight-stream nozzles, D-8 or larger). **DO NOT** use nozzles producing a mist droplet spray.
- 3. Nozzles must always point backward parallel with the airstream and never point downward more than 45 degrees.
- 4. Without compromising aircraft safety, application should be made at a height of 10 feet or less above the crop canopy or tallest plants.
- 5. **DO NOT** apply when wind speed is greater than 10 miles per hour, during periods of temperature inversions or stable atmospheric conditions.

6. Avoid potential adverse effects to nontarget areas by maintaining a 160-foot buffer between the point of direct application and the **closest downwind edge** of sensitive terrestrial habitats (grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas, shrub lands, and crop lands).

#### **Ground Application Requirements**

**Spray Carrier Volume.** Use 5 or more gallons of water per treated acre or 20 or more gallons of sprayable fluid nitrogen fertilizer per treated acre for weed control application.

Applicators must follow these requirements to reduce the potential of spray drift to nontarget areas from ground application:

- Apply this product using nozzles which deliver medium-to-coarse spray droplets as defined by ASABE standard S-572 and as shown in nozzle manufacturer's catalogs. Flat-fan nozzles are recommended for burndown applications while flood-jet type nozzles are recommended for residual soil surface application. Nozzles that deliver coarse spray droplets may be used to reduce spray drift provided spray volume per acre (GPA) is increased to maintain coverage of target (i.e. weeds or soil surface). DO NOT use nozzles that produce fine (e.g. cone) spray droplets.
- Apply this product only when the potential for drift to adjacent nontarget areas is minimal (e.g. when the wind is **10 MPH or less and is blowing away** from sensitive areas). **DO NOT** apply during periods of temperature inversions or stable atmospheric conditions.
- 3. Avoid potential adverse effects to nontarget areas by maintaining a 75-foot buffer between the application area and the **closest downwind edge** of sensitive terrestrial habitats (grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas, shrub lands, and crop lands).

#### Ground Application (dry bulk fertilizer)

**Saflufenacil CS herbicide** may be impregnated or coated onto dry bulk granular fertilizer carriers for residual soil surface application. Impregnation or coating may be conducted by in-plant bulk or on-board systems. Perform the mixing operation in well-ventilated areas.

Addition of a drying agent may be necessary if the fertilizer and herbicide blend is too wet for uniform application because of high humidity, high urea concentration, or low fertilizer use rate. Slowly add the drying agent to the blend until a flowable mixture is obtained. Drying agents are not recommended for use with on-board impregnation systems.

Under some conditions, fertilizer impregnated with Saflufenacil CS may clog air tubes or deflector plates on pneumatic application systems. Mineral oil may be added to Saflufenacil CS before blending with fertilizer to reduce plugging. DO NOT use drying agents when mineral oil is used. To avoid separation of Saflufenacil CS and mineral oil mixes in cold temperatures, keep mixture heated or agitate before blending with fertilizer. Mineral oil may be used with in-plant blending stations or on-board injection systems.

Generally, fertilizer application rates of at least 200 lbs to 700 lbs per acre of herbicide and fertilizer blend provide adequate distribution or coverage of **Saflufenacil CS** across the soil surface. Refer to **Table 5** in this label for use rates of **Saflufenacil CS** to be applied on per acre basis when impregnated with fertilizer to create the dry bulk fertilizer blend for application. Application must be made uniformly to the soil to prevent possible crop injury and offer satisfactory weed control. Impregnated fertilizer spread at half rate and overlapped for a full rate offers a more uniform distribution. A shallow (less than 2 inches) incorporation is desirable for improved weed control. Deeper incorporation dilutes the herbicide layer near the soil surface and may result in unsatisfactory weed control.

To calculate the herbicide rate when using dry bulk fertilizer application:

fl ozs herbicide per acre	x 2000		fl ozs herbicide	
pounds fertilizer per acre	X	2000	=	per ton of fertilizer

#### **Cleaning Spray Equipment**

Clean application equipment thoroughly by using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions, followed by triple rinsing the equipment before and after applying this product.

#### **Spray Drift Advisories**

The applicator is responsible for avoiding off-site spray drift. Be aware of nearby nontarget sites and environmental conditions.

#### **Importance of Droplet Size**

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

# Controlling Droplet Size - Ground Boom Volume

**Volume.** Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.

**Pressure.** Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.

**Spray Nozzle.** Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

#### **Controlling Droplet Size - Aircraft Adjust Nozzles**

Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles must be oriented parallel with the airflow in flight.

#### **Boom Height - Ground Boom**

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom must remain level with the crop and have minimal bounce.

#### **Release Height - Aircraft**

Higher release heights increase the potential for spray drift. When applying aerially to crops, **DO NOT** release spray at a height greater than 10 feet above the crop canopy, unless a greater application height is necessary for pilot safety.

#### **Shielded Sprayers**

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

#### **Temperature and Humidity**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

#### **Temperature Inversion**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### Wind

#### Drift potential generally increases with wind speed. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.**

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

#### Additives

**Saflufenacil CS herbicide** is formulated to provide optimal residual preemergence weed control. No additive is needed when **Saflufenacil CS** is applied alone.

However, several herbicide tank mixes with

**Saflufenacil CS** may require an adjuvant to improve burndown of emerged weeds. Therefore, depending on the timing of application relative to crop emergence, the following adjuvants may be used with **Saflufenacil CS** tank mixes: For applications made before crop emergence (i.e., preplant surface, preplant incorporated, or preemergence): non-ionic surfactant (NIS), crop oil concentrate (COC), methylated seed oil (MSO), urea ammonium nitrate (UAN).

For applications made after crop emergence (i.e., early postemergence): NIS at 0.25% v/v (1 qt/100 gal) optionally with a spray grade ammonium sulfate (AMS) at 8.5 to 17 lbs/100 gallons of water. If using liquid AMS product, use a rate that delivers an AMS equivalent of 8.5 to 17 lbs/100 gallons of water. The use of COC may result in temporary crop injury. **DO NOT** add MSO or UAN to a **Saflufenacil CS** spray mix.

When an adjuvant is to be used with this product, BASF recommends the use of a Chemical Producers and Distributors Association (CPDA) certified adjuvant.

#### **Tank Mixing Information**

It is the pesticide user's responsibility to ensure that all products in the mixtures are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

**Saflufenacil CS** may be tank mixed or applied sequentially with other herbicide products registered for use in any labeled crop found in this label for a broader spectrum of residual weed control. Refer to the tank mix product labels to confirm that the respective tank mix products are registered for use on the labeled crop. Read and follow tank mix product labels for application instructions, use restrictions and precautions, and rotational cropping guidance.

#### **Compatibility Test for Mix Components**

Before mixing components, always perform a compatibility jar test.

- 1. For 20 gallons per acre spray volume, use 3.3 cups (800 mL) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source at the source temperature.
- 2. Add components in the sequence indicated in **Mixing Order** using 2 teaspoons for each pound or 1 teaspoon for each pint of label rate per acre.
- 3. Always cap the jar and invert 10 cycles between component additions.
- 4. When the components have all been added to the jar, let the solution stand for 15 minutes.
- 5. Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface, or fine particles that precipitate to the bottom, or thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is then compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, **DO NOT** mix the ingredients in the same tank.

#### **Mixing Order**

Maintain agitation throughout mixing and application until spraying is completed.

- 1. Water Fill tank 1/2 to 3/4 full with clean water and start agitation.
- 2. **Inductor** If an inductor is used, rinse it thoroughly after each component has been added.
- 3. **Products in PVA bags** Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
- 4. **Water-soluble additives** (including dry and liquid fertilizers AMS or UAN)
- Water-dispersible products (dry flowables, wettable powders, suspension concentrates, or suspo-emulsions); add Saflufenacil CS herbicide now.
- 6. **Water-soluble products** (including certain glyphosate formulated products)
- 7. Emulsifiable concentrates (including MSO adjuvants)
- 8. Remaining quantity of water

If the spray mixture is allowed to settle for any period of time, thorough agitation is essential to resuspend the mixture before spraying is resumed. Continue agitation while spraying.

#### **Use Restrictions**

- Maximum seasonal use rate Refer to Cropspecific Information section for maximum cropping seasonal application use rates for each crop and use pattern. A cropping season is defined as the period following harvest of the preceding crop through the harvest of the planned or current crop.
- **DO NOT** contaminate water used for irrigation or domestic purposes.
- **DO NOT** apply **Saflufenacil CS** through any type of irrigation system (e.g. chemigation).
- Saflufenacil CS is not for sale, distribution, or use in Nassau and Suffolk counties in New York State.

#### **Crop Rotation and Emergency Replanting Intervals**

Refer to **Table 4** for the proper interval between **Saflufenacil CS herbicide** application and planting of rotational crops or replanting after crop failure (because of environmental factors including drought, frost, or hail, etc.). Determine the rotational crop interval for tank mix products and use the most restrictive interval of all products applied.

#### Table 4. Rotational Crop Planting and Emergency Replanting Intervals by Saflufenacil CS Application Rate

	Saflufenacil CS Rate (fl ozs/A)				
Сгор	5.3	6.6	7.9	10.5	15.8
	<b>Rotational Crop Interval</b> (months after application) <sup>1</sup>				`
Alfalfa	5	5.5	6	7	9
Corn	0	0	0	0	0
Corn, pop and sweet	1	1.5	2	3	4
Sorghum	0	0	0	0	1
Small grains <sup>2</sup>	0	0	0	0	3
Rice	0	0	0	0	4
Chickpea	0	1	2*	4	6
Edible pea	1	2	3	4	6
Field pea, dry	0	1	2	4	6
Edible bean <sup>3</sup>	1	2	3	4	6
Grass (forage, seed) Establishment	0	0	0	0	1
Soybean	1	2	3	4	6
Lentil	1	2	3	4	6
Cotton	3	3.5	4	6	9
Citrus fruit trees	1	2	4	4	4
Fig trees	3	3.5	4	4	4
Nut trees	3	3.5	4	4	4
Olive trees	3	3.5	4	4	4
Pomegranate trees	3	3.5	4	4	4
Pome fruit trees	3	3.5	4	4	4
Stone fruit trees	3	3.5	4	4	4
Sugarbeet	5	5.5	6	7	9
Sugarcane	4	5	6	7	9
Sunflower	5	5.5	6	7	9
Cover crops (winter, spring)**	2	2	2	4	4
Other crops	5	5.5	6	7	9

<sup>1</sup> **DO NOT** include time when the soil is frozen.

<sup>2</sup> Small grains are defined as barley, oats, pearl millet, proso millet, rye, triticale, and wheat. For other small grains, use the rotational crop interval for **Other Crops**.

<sup>3</sup> Edible bean refers to blackeyed pea, crowder pea, cowpea, southern pea. Use the **Other Crops** rotational crop planting interval for beans not specifically listed in this table.

\* Interval is 0 months in Idaho, Oregon, and Washington.

\*\* Cover crops (winter, spring) may be planted after application of Saflufenacil CS, either inter-seeded into the current crop before harvest or after harvest of the current crop. Depending on the sensitivity of the sown cover crop to Saflufenacil CS, stand establishment may be reduced. If cover crops were sown less than 4 months after Saflufenacil CS application, DO NOT harvest cover crops as a food or feed crop, and DO NOT allow livestock to graze cover crops.

#### **Crop-specific Information**

Read product information, mixing, application, weeds controlled, and additive instructions in preceding sections of the label.

#### Field Corn (grain, seed, silage)

Saflufenacil CS herbicide may be applied preplant surface, preplant incorporated, preemergence, or early postemergence to corn for residual preemergence control of broadleaf weeds (**Table 1**). Corn in this label refers to field corn (grown for grain, seed, or silage). Before applying Saflufenacil CS to seed corn, verify the selectivity of Saflufenacil CS on your inbred line or hybrid with your local seed company (supplier) to help avoid potential injury to sensitive inbreds or hybrids.

#### **Application Rate**

Use **Saflufenacil CS** as a part of a weed control program in field corn either in combination or sequentially with other herbicides for a broader spectrum of weed control.

Apply **Saflufenacil CS** in field corn at the residual rates provided in **Table 5**.

### Table 5. Residual Rates of Saflufenacil CS inField Corn

Application	Use Rate <sup>1</sup> by Soil Texture <sup>2</sup> (fl ozs/A)				Use Rate <sup>1</sup> by Soil Texture <sup>2</sup> (fl ozs/A)		
Tining	Coarse	Medium	Fine				
Preplant Surface	5.3 to 6.6	6.6 to 7.9	6.6 to				
Preplant Incorporated			10.5 [6.6 to				
Preemergence	[5.3 to	[6.6 to	15.8]				
Early Postemergence	15.8]	15.8]	6.6 to 7.9 [6.6 to 15.8]				

<sup>1</sup> Application rates in **Table 5** eliminate early season broadleaf weed interference until cultivation or a labeled postemergence herbicide is applied.

<sup>2</sup> Refer to **Table 2** for definition of soil texture groups. *Text in brackets* [] *is alternate text.* 

#### **Application Timing**

**Saflufenacil CS** may be applied in a single application or in sequential applications.

# Early Preplant Surface Application (within 15 to 30 days of planting)

Use application rates in **Table 5** when making early preplant surface applications, using the highest application rate for a given soil texture. Early preplant surface applications are not advised on coarse soils, or in areas where average annual rainfall (or rainfall plus irrigation) typically exceeds 40 inches.

Early preplant surface applications may be applied as part of a split application program where applications are made as part of the application timings described in this label. However, the cumulative total of sequential application rates must not exceed the maximum labeled rate for a given soil texture.

#### Preplant Surface and Preplant Incorporated Applications (within 14 days of planting)

**Saflufenacil CS** can be applied at use rates specified in **Table 5** to the soil surface or incorporated up to 14 days before planting on all soil types. For preplant incorporated application, apply **Saflufenacil CS** and incorporate into the upper soil surface (1 to 2 inches). Use a harrow, rolling cultivator, field cultivator, or other implement capable of uniform shallow incorporation. Avoid deeper incorporation or reduced weed control may result.

#### **Preemergence Surface Application**

Apply **Saflufenacil CS** at use rates specified in **Table 5** as a broadcast spray to the soil surface after planting and before crop emergence.

#### **Early Postemergence Application**

Apply **Saflufenacil CS** at use rates specified in **Table 5** as a broadcast spray to field corn at spiking up to the V8 stage (visible eighth leaf collar) [*Alternate text:* V3 stage (visible third leaf collar) or V4 stage (visible fourth leaf collar) or V5 stage (visible fifth leaf collar) or V6 stage (visible sixth leaf collar)].

#### **Sequential Application**

If a sequential application program of **Saflufenacil CS** is used (e.g. preplant followed by preemeergence application, or preplant or preemergence followed by an early postemergence application), the maximum combined rate of **Saflufenacil CS** that may be applied in field corn per year is 15.8 fl ozs/A (0.134 lb ai/A of saflufenacil).

#### **Crop-specific Restrictions**

- DO NOT apply Saflufenacil CS to popcorn or sweet corn.
- **DO NOT** apply more than 15.8 fl ozs/A of **Saflufenacil CS** (0.134 lb ai/A of saflufenacil) in a single application.
- **DO NOT** apply more than 15.8 fl ozs/A of **Saflufenacil CS** (0.134 lb ai/A of saflufenacil) as a maximum cumulative amount from sequential applications in field corn per cropping season.
- **DO NOT** apply **Saflufenacil CS** where an at-planting application of an organophosphate (OP) or carbamate insecticide(s) is planned and/or has occurred because severe injury may result. **Saflufenacil CS** may be applied with all other classes of at-planting insecticides including neonicotinoid and pyrethroids.

**EXCEPTION: Saflufenacil CS** may be applied when **Aztec® 2.1% granular insecticide**, **Aztec® 4.67 G granular insecticide**, or **SmartChoice® 5G granular insecticide** is applied at planting as a band, T-band, or in-furrow.

- **DO NOT** apply more than a maximum cumulative amount of 0.134 lb ai/A of saflufenacil per cropping season in field corn from all product sources.
- There is no required (preharvest) interval between a preplant surface, preplant incorporated, preemergence, or early postemergence application of **Saflufenacil CS herbicide** and the harvest of field corn. Corn forage and stover may be fed to livestock after harvest.

#### **Crop-specific Precautions**

- When applied before crop emergence, **Saflufenacil CS** use may result in delayed corn emergence and stunting under certain environmental conditions including cool temperatures, excessive rainfall/irrigation, and/or persistent wet soil conditions occurring after application.
- Ensure the corn seed row is closed. Soil conditions that cause poor seed furrow closure and coverage may result in delayed corn emergence or stunting.
- Application of this product with other postemergence or residual herbicides may increase the potential for crop injury after corn has emerged.
- Early postemergence applications of **Saflufenacil CS** may result in crop response symptoms consisting of foliar spotting on emerged leaves. Use of an adjuvant can increase the level of foliar spotting on emerged leaves. Refer to **Additives** section for more details on adjuvants.
- Tank mixing of **Saflufenacil CS** with Glufosinate formulations for early postemergence applications is **NOT** advised as corn injury could result.
- Early postemergence applications of **Saflufenacil CS** should be made with water as the carrier. Sprayable fluid fertilizer as an herbicide carrier for early postemergence applications in corn can typically cause corn injury up to and including tissue burn (necrosis). Sprayable fluid fertilizer as a carrier is **NOT** advised for use with **Saflufenacil CS** after crop emergence unless typical fertilizer burn symptoms are acceptable.

• Make applications of **Saflufenacil CS** promptly after preparing the spray mixture. Avoid use of spray solutions of **Saflufenacil CS** which have been allowed to stand or have been stored in application equipment or the mix tank for an extended period of time as corn injury could result.

#### **Fallow and Postharvest Croplands**

**Saflufenacil CS** may be used for residual control of broadleaf weeds at any time of the year during the fallow period following crop harvest and before the following crop is planted.

#### **Application Rate and Timing**

**Saflufenacil CS** may be applied in a single application or in sequential applications.

For residual broadleaf weed control, apply **Saflufenacil CS** at 5.3 to 10.5 fl ozs/A.

Specific rotational crop planting intervals must be observed between application of **Saflufenacil CS** and planting of the following crop (see **Table 4** for rotational crop planting intervals).

#### **Crop-specific Restrictions**

- **DO NOT** apply more than 10.5 fl ozs/A of **Saflufenacil CS** (0.089 lb ai/A of saflufenacil) in a single application.
- **DO NOT** apply more than 15.8 fl ozs/A of **Saflufenacil CS** (0.134 lb ai/A of saflufenacil) as a maximum cumulative amount from sequential applications in fallow and postharvest croplands per cropping season.
- Retreatment Interval (minimum) 14 days

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

