



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs  
Registration Division (7505P)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

EPA Reg. Number:

2217-1053

Date of Issuance:

5/15/20

NOTICE OF PESTICIDE:

Registration  
 Reregistration  
(under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

EH-1681 Herbicide

Name and Address of Registrant (include ZIP Code):

Eric D. Smith  
Director, Regulatory Affairs  
PBI/Gordon Corporation  
P.O. Box 860350  
Shawnee, KS 66286

**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 under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

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)(A). You must comply with the following conditions:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:

Mindy Ondish, Product Manager 23  
Herbicide Branch, Registration Division (7505P)

Date:

5/15/20

2. You are required to comply with the data requirements described in the Generic Data Call-Ins (GDCIs) identified below:
  - a. Dicamba GDCI-029801-1659
  - b. 2,4-D GDCI-030063-1362

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

3. The data requirements for storage stability and corrosion characteristics (Guidelines 830.6317 and 830.6320) are not satisfied. A one-year study is required to satisfy these data requirements. You have 18 months from the date of registration to provide these data.
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) list 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.

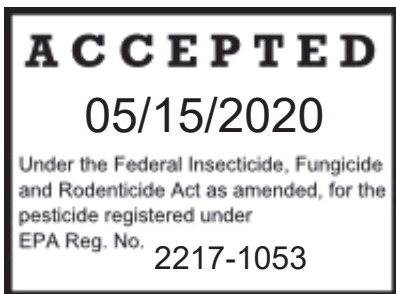
If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 2/15/2019
- Alternate CSFs 1-9 dated 2/15/2019

The alternate brand name, "**SpeedZone EW Broadleaf Herbicide for Turf**" has been added to the product record.

If you have any questions, please contact Julia Kerr by phone at 703-347-0386, or via email at [kerr.julia@epa.gov](mailto:kerr.julia@epa.gov).

Enclosure



2,4-D MECOPROP-P DICAMBA	GROUP	4	HERBICIDE
CARFENTRAZONE	GROUP	14	HERBICIDE

# EH-1681 HERBICIDE

## EPA Reg. No. 2217-1053

Alternate Brand Name: SpeedZone® EW Broadleaf Herbicide for Turf

**ACTIVE INGREDIENTS:**

2,4-D, 2-ethylhexyl ester .....	25.86%
Mecoprop-p, DMA salt .....	6.84%
Dicamba, DMA salt .....	1.91%
Carfentrazone-ethyl .....	0.57%

<b>OTHER INGREDIENTS:</b> .....	<u>64.82%</u>
<b>TOTAL</b> .....	<b>100.00%</b>

**THIS PRODUCT CONTAINS:**

- 1.27 lb 2,4-dichlorophenoxyacetic acid equivalent per gallon or 17.15%.
- 0.42 lb (+)-R-2-(2-methyl-4-chlorophenoxy)propionic acid equivalent per gallon or 5.66%.
- 0.12 lb 3,6-dichloro-o-anisic acid equivalent per gallon or 1.59%.
- 0.04 lb Ethyl α,2-dichloro-5-[4(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl]-4-fluorobenzenepropanoate per gallon or 0.57%

### KEEP OUT OF REACH OF CHILDREN

### CAUTION

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.)

**STOP! READ THE ENTIRE LABEL FIRST. OBSERVE ALL PRECAUTIONS AND FOLLOW DIRECTIONS CAREFULLY.**

See attached booklet [inside pages] for complete Precautionary Statements and Directions for Use, including First Aid, Agricultural Use Requirements, and Storage and Disposal.

**Net Contents:** \_\_\_\_\_  
**EPA Est. No.** \_\_\_\_\_

**Company Name and Address:**  
PBI/Gordon Corporation  
P.O. Box 860350  
Shawnee, Kansas 66286



# **PRECAUTIONARY STATEMENTS**

## **Hazards to Humans and Domestic Animals**

**CAUTION:** Causes moderate eye irritation. Harmful if swallowed. Avoid contact with eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

## **Personal Protective Equipment (PPE)**

All mixers, loaders, applicators, and other handlers must wear:

- long-sleeved shirt and long pants,
- shoes and socks,
- chemical resistant gloves made of barrier laminate, butyl rubber ( $\geq 14$  mils), nitrile rubber ( $\geq 14$  mils), neoprene rubber ( $\geq 14$  mils), or viton ( $\geq 14$  mils), and
- chemical resistant apron when mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.

See engineering controls for additional requirements.

## **User Safety Requirements**

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

## **Engineering Control Statements**

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.607(d-e), 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.
- 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.
- Users should 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.

### **First Aid**

#### **If swallowed:**

- Call a poison control center or doctor immediately for treatment advice.
- Have a person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

#### **If in eyes:**

- Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.
- Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-877-800-5556 for emergency medical information.

## **Environmental Hazards**

This pesticide is toxic to fish and aquatic invertebrates and may adversely affect non-target plants. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high

water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

2,4-D and Mecoprop-p have properties and characteristics associated with chemicals detected in groundwater. The use of these chemicals in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Application around a cistern or well may result in contamination of drinking water or groundwater.

**Fish Advisory Statement:** This product may be hazardous to aquatic organisms, particularly in clear, shallow water bodies that are adjacent to treated areas. Transport to water by runoff or spray drift of this product in areas where surface water is present, or intertidal areas below the mean high water mark, should be avoided. Do not contaminate water when disposing of equipment wash water or rinsate.

**Non-target Organism Advisory Statement:** This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by minimizing spray drift.

## **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.

### **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 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 worn over short-sleeved shirt and short pants,
- chemical-resistant footwear plus socks,
- chemical resistant gloves made of barrier laminate, butyl rubber ( $\geq 14$  mils), nitrile rubber ( $\geq 14$  mils), neoprene rubber ( $\geq 14$  mils), or viton ( $\geq 14$  mils)
- chemical-resistant headgear for overhead exposure and
- protective eyewear.

### **Non-Agricultural Use Requirements**

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

Do not enter or allow people (or pets) to enter the treated area until sprays have dried.

## 1. Product Description

EH-1681 HERBICIDE is a post-emergent herbicide that provides control of listed broadleaf weeds while offering turfgrass safety in established cool- and warm-season turf species. EH-1681 HERBICIDE features cool-weather performance and fast response, with symptoms generally visible within hours.

EH-1681 HERBICIDE offers these advantages:

- Four active ingredients for broad-spectrum control.
- Dependable control of more than 90 listed broadleaf weed species, including clover, dandelion, dollarweed, and spurge.
- Provides control of goosegrass and nimblewill.
- Fast-acting with evidence of injury within hours. Plant death in 7 to 10 days.
- Cool weather performance.
- High selectivity (turfgrass safety) in established cool- and warm-season turfgrass species.

## 2. Use Restrictions

- Only use for sites, pests, and application methods specified on this labeling.
- Do not apply at temperatures above 90°F unless temporary turf injury can be tolerated.
- Do not apply this product immediately before rainfall or irrigation.
- Do not apply to exposed roots or shallow rooted trees and shrubs.
- For ground application only; aerial applications are not permitted.
- Do not apply this product through any type of irrigation system.
- Do not allow livestock to graze on any areas treated with this product.
- Do not apply this product to bare ground.
- Do not formulate this product into other end-use products without written permission from PBI-Gordon Corporation.
- Endangered Species: It is a Federal offense to use any pesticide in a manner that results in the death of an endangered species. Use of this product may pose a hazard to endangered or threatened species. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the county in which you are applying the product. To obtain Bulletins, no more than six months before using this product, consult <http://www.epa.gov/espp/> or call 1-800-447-3813. You must use the Bulletin valid for the month in which you will apply the product.

## 3. Weed Resistance Management

For resistance management, this product contains Group 4 and Group 14 herbicides. Any weed population may contain or develop plants naturally resistant to this product and other Group 4 or 14 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same area. Appropriate resistance management strategies should be followed.

To delay herbicide resistance take one or more of the following steps:

- Rotate the use of this product or other Group 4 or 14 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or pest control advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use, and that considers mechanical control

methods, cultural (e.g., timing to favor the turf and not the weeds), biological (weed-competitive varieties) and other management practices.

- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: 1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; 2) a spreading patch of non-controlled plants of a particular weed species; 3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method. Prevent movement of resistant weed seeds to other areas by cleaning equipment.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or pest control advisor for additional pesticide resistance-management and/or integrated weed-management recommendations for specific types of turf and weed biotypes.
- For further information or to report suspected resistance, call 877-800-5556.

#### **4. Spray Preparation And Tank Mixes**

EH-1681 HERBICIDE is a stable emulsion in water (EW) that can be diluted with water or liquid fertilizer to form a stable emulsion. EW formulations are non-flammable and offer good miscibility with water.

##### **Mixing with Water:**

Add one-half the required amount of water to the spray tank. Then add EH-1681 HERBICIDE slowly with agitation and complete filling the tank with water. Mix thoroughly and continue agitation while spraying. When this product is left standing for extended periods of time, re-agitate to assure uniformity of the spray mixture.

Do not use tank additives that alter the pH of the spray solution below pH 5 or above pH 8. Buffer the spray solution to alter the pH range as appropriate.

##### **Mixing with Liquid Fertilizers:**

Use suitable sources and rates of fertilizer based upon recommendations of your fertilizer supplier or State Extension Service Specialist.

Always verify physical compatibility with a jar test before large scale mixing. The jar test can be conducted by mixing all components in a small container in proportionate quantities. If the mixture separates after standing and can be mixed readily by shaking, then the mixture can be used and applied with spray equipment providing continuous agitation. If large flakes, sludge, gels, or other precipitates form, or if a separate oily layer or oil globules appear, then the herbicide and the liquid fertilizer must not be prepared as a tank mixture.

Liquid fertilizers are either solutions (true fluids) or suspensions. Physical compatibility of this product is adequate with liquid nitrogen solutions. Mixing this product with suspensions or N-P-K solutions may not be satisfactory (may be marginal) without pre-mixing this product with water. Pre-mixing this product with 2 parts water will ensure that the emulsifiers are activated enabling the herbicide to be suspended in the fertilizer.

##### **Adjuvants and spray additives:**

Adjuvants (including surfactants, spreaders, spreader-stickers, spray thickeners, foaming agents, activators, detergents, and drift reducing agents) combined with this product can damage the leaf tissue of turfgrass. If any discoloration or cosmetic effects are objectionable or would be unacceptable, then the use of adjuvant(s) would not be recommended. Do not use adjuvants and spray additive tank-mix

combinations unless your experience indicates that the tank mixture will not result in objectionable turf injury.

#### **Mixing with other pesticides:**

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

## **5. Ground Equipment**

**Spray distribution:** The accuracy and uniformity of the herbicide distribution is the sole responsibility of the applicator. Power sprayers fitted with a boom or spray wand/gun may be used for broadcast applications and spot treatments. Boom sprayers equipped with appropriate nozzles, tips, and screens are suitable for broadcast applications. For best spray distribution and coverage, select a spray volume and delivery system that will ensure accurate and uniform coverage.

Use spray volumes of 10 to 220 gallons per acre (29 fl.oz. to 5 gal per 1000 sq.ft.). Use higher spray volumes for dense weed populations.

- Calibration and proper application are essential when using this product.
- Over-application or rates above those specified on this label can cause turf injury.
- Hand-held technique: Wands fitted with flat fan nozzle tips may be used with the appropriate technique. Flat fan nozzles should not be waved in a back-and-forth motion, or in a side-to-side motion, or in a swinging arm motion. These motions result in uneven coverage. Instead, the nozzle should be held stationary at the proper height.

Hand operated sprayers including backpack sprayers and compression sprayers are appropriate for small turfgrass areas.

**Low Volume Spray Application Equipment:** Apply a minimum of 10 gallons of total spray solution per acre (29 fl.oz./1000 sq.ft.). Uniformly wet leaf surfaces. Higher spray volumes may be required for dense weed infestations, difficult to control weeds, mature weeds, or during adverse/extreme environmental conditions.

After using this product, clean sprayer with soap or detergent and water, or an approved spray tank cleaner and rinse thoroughly before applying other pesticides.

## **6. Spray Drift**

### **Ground Boom Applications**

- For ground boom applications, apply with the nozzle height no more than 4 feet above the ground. For all other ground applications, the nozzle must be no more than 4 feet from the target vegetation.
- For ground applications, select nozzle and pressure that produce medium to coarse spray droplets as indicated in nozzle manufacturer's catalogues and in accordance with ASABE Standard 572.1.

## **7. Spray Drift Management**

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR AND THE GROWER.

This product contains 2,4-D ester as an active ingredient. 2,4-D ester may volatilize during conditions of low humidity and high temperatures. Do not apply during conditions of low humidity and high temperatures. Mist from spray drift may cause injury to sensitive plants. Avoid any drift conditions that would allow the product to contact desirable vegetation.



The interaction of equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

### **Other State and Local Requirements**

Applicators must follow all state and local pesticide drift requirements regarding application of 2,4-D herbicides. Where states have more stringent regulations, they must be observed.

### **Information on droplet size**

The most effective way to reduce drift potential is to apply large droplets. The optimum drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift when applications are made improperly, or under unfavorable environmental conditions (See Wind, Temperature and Humidity, and Temperature Inversions).

All ground application equipment must be properly maintained and calibrated using appropriate carriers.

Wind speed must be measured adjacent to the application site, on the upwind side, immediately prior to application.

### **Controlling Spray Droplet Size**

**Volume:** Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows usually produce larger droplets.

**Pressure:** Do not use pressures greater than that specified by the nozzle manufacturer. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

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

**Nozzle Type:** Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low drift nozzles.

**Application Height:** Making applications at the lowest height practical reduces exposure of spray droplets to evaporation and wind movement.

**Swath Adjustment:** Swath adjustment distance must increase, with increasing drift potential (higher wind, smaller drops, etc.).

**Drift Reduction Technology (DRT):** The EPA Drift Reduction Technology (DRT) Program was developed to encourage the manufacture, marketing, and use of spray technologies scientifically verified to significantly reduce pesticide drift. The use of DRTs should result in significantly less pesticide from spray applications drifting and being deposited in areas not targeted by those applications, compared to spray technologies that do not meet the minimum DRT standard. EPA-verified drift reduction technologies (DRTs) and their ratings will be added to the following webpage as they become available: <https://www.epa.gov/reducing-pesticide-drift/epa-verified-and-rated-driftreduction-technologies>

**Wind:** Drift potential is lowest between winds speeds of 3 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. Applications shall be avoided below 3 mph due to variable wind direction and high inversion potential. Do not apply this product when wind speed exceeds 10 mph. NOTE: Local terrain can influence wind patterns. Every applicator shall be familiar with local wind patterns and how they affect spray drift.

**Temperature and Humidity:** When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when

conditions are both hot and dry.

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

**Shielded Sprayers:** Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

**Susceptible Plants:** Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption. Susceptible crops include, but are not limited to, cotton, okra, flowers, grapes (in growing stage), fruit trees (foliage), soybeans (vegetative stage), ornamentals, sunflowers, tomatoes, beans, and other vegetables, or tobacco. Small amounts of spray drift that might not be visible may injure susceptible broadleaf plants.

## 8. Where To Use

### • Ornamental Turfgrass sites:

- **Residential/domestic sites** including areas associated with household or home life including apartment complexes, and condominiums.
- **Ornamental turf sites** including turfgrass established around residences, parks, streets, cracks in, and the edges of, paved areas, retail outlets, cemeteries, industrial and institutional buildings, recreation areas, playgrounds, fairgrounds, and athletic fields.
- **Institutional sites** including properties or facilities providing a service to public or private organizations including, but not limited to hospitals, nursing homes, schools, museums, libraries, sport facilities, golf courses, and office buildings.
- **Non-cropland sites:** including farmyards, fencerows or fence lines, highway rights-of-way (principal, interstate, county, private, and unpaved roads): Roadsides, roadside ditches, road shoulders, road embankments, dividers, and medians; Industrial sites: Lumberyards, tank farms, fuel or equipment storage areas; Municipal, state, and federal lands: Airports and military installations; railroad rights-of-ways, railroad yards, railroad crossings and railroad bridge abutments; Utility rights-of-way: telephone, pipeline, electrical powerlines, and communication transmission lines.
- **Agricultural site:** Commercial sod production

### Site Restrictions:

- Do not apply this product to bentgrass mowed under 1/4 inch, St. Augustinegrass, bahiagrass, centipedegrass, seashore paspalum, carpetgrass, dichondra, legumes, and lawns where desirable clovers are present.
- Do not apply to any body of water including lakes, streams, rivers, ponds, reservoirs, or estuaries (salt water bays), or wetlands (swamps, bogs, potholes, or marshes). Do not apply to any shorelines (noncropland sites adjacent to the edges of a body of water) for lakes, streams, rivers, ponds, reservoirs, or estuaries (salt water bays).
- Do not apply to agricultural irrigation water or irrigation ditch banks and canals.

### State Restrictions:

**Arizona:** The state of Arizona has not approved this product for use on sod farms.

## 9. How Much To Use

### Use rates and spray volumes:

Generally, the lower application rates within the specified range will provide satisfactory control of sensitive weed species. The higher application rates within the specified range will be required for dense infestations of perennial weeds, for adverse/extreme environmental conditions, or for weeds hardened off or more mature.

<b>Table 1. Use Rates For Ornamental Turfgrass, Sod Farms, and Non-Cropland.</b>		
<b>Species</b>	<b>Rate</b>	<b>Spray Volume</b>
<b>Cool-Season Turf</b>		
Kentucky bluegrass, annual bluegrass, annual ryegrass, perennial ryegrass, tall fescue, red or fine leaf fescues, creeping bentgrass, colonial bentgrass (excluding golf greens)	3 to 5 pt/acre 1.1 to 1.8 fl.oz./1000 sq.ft.	3 to 220 gal/acre 9 fl.oz. to 5 gal/1000 sq.ft.
Mixtures of cool-season species in noncropland areas established for aesthetic purposes	3 to 5 pt/acre 1.1 to 1.8 fl.oz./1000 sq.ft.	3 to 220 gal/acre 9 fl.oz. to 5 gal/1000 sq.ft.
Mixtures of cool-season species in noncropland areas established for roadside vegetation management or for low maintenance. (Kentucky bluegrass, tall fescue, smooth brome grass, and orchardgrass)	3 to 5 pt/acre 1.1 to 1.8 fl.oz./1000 sq.ft.	3 to 220 gal/acre 9 fl.oz. to 5 gal/1000 sq.ft.
<b>Warm-Season Turf</b>		
Common Bermudagrass, hybrid Bermudagrass, zoysiagrass and buffalograss	2 to 4 pt/acre 0.75 to 1.5 fl.oz./1000 sq.ft.	3 to 220 gal/acre 9 fl.oz. to 5 gal/1000 sq.ft.
For Warm-Season turf, the lower rates listed above should be used in temperatures above 90°F.		
Note: It is impossible to test all environmental conditions for the listed turfgrasses. We suggest testing this product on a small area and observe the treated area for 30 days to determine the acceptability of turf discoloration.		
EH-1681 HERBICIDE should only be applied to turfgrass species that are listed in Table 1 unless trial use indicates that the turf species not listed is tolerant to EH-1681 HERBICIDE.		
In addition to applications to actively growing Bermudagrass, zoysiagrass, and buffalograss, fully dormant applications to these species will control winter annual broadleaf weeds. Applications during winter-to-spring and fall-to-winter transition periods are not advised.		

### Limitations on broadcast treatments for Ornamental Turfgrass, Sod Farms, and Non-Cropland:

The maximum application rate is 5 pt of product per acre per application [0.79 lb 2,4-D ae, 0.26 lb MCP-p ae, 0.075 lb dicamba ae and 0.025 lb carfentrazone per acre per application]. The maximum number of broadcast applications is limited to 2 per year with a minimum of 30 days between applications. The maximum seasonal rate is 10 pt of product per acre per year [1.59 lb 2,4-D ae, 0.53 lb MCP-p ae, 0.15 lb dicamba ae and 0.05 lb carfentrazone per acre].

### Spot Treatment with Hand Operated Sprayers (including backpack sprayers and pump-up type sprayers):

- Apply any time the emerged broadleaf weeds are actively growing.
- Spray the target weeds thoroughly and wet the entire leaf surface of the undesirable plants.
- Calibration and proper application are essential when using this product.
- Uniform applications are essential when using this product. Over application or rates above those specified on this label including excessive overlaps of this product can cause turf injury.
- Follow-up applications as spot treatments at a 30 day interval are advised for more mature weeds, for dense infestations, and for adverse environmental conditions.
- **For cool-season turfgrasses listed in Table 1:** Mix 1.1 to 1.8 fl.oz. of EH-1681 HERBICIDE per 1 gal of water for treatment of approximately 1000 sq.ft of turfgrass.

- **For warm-season turfgrasses listed in Table 1:** Mix 0.75 to 1.5 fl.oz. of EH-1681 HERBICIDE per 1 gal of water for treatment of approximately 1000 sq.ft of turfgrass. For warm-season turf, lower rates listed above should be used in temperatures above 90°F.

**Limitations on spot treatments:**

Spot treatment is defined as a treatment area no greater than 1000 sq.ft. per acre. The maximum application rate is 1.8 fl.oz. per 1000 sq.ft. per application. The maximum number of spot treatments is limited to 2 per year with a minimum of 30 days between applications.

**Hand-held techniques:** Wands fitted with flat fan nozzle tips may be used with the appropriate technique. Flat fan nozzles should not be waved in a back-and-forth motion, or in a side-to-side motion, or in a swinging arm motion. Instead the nozzle should be held stationary at the proper height. Side-to-side motions result in uneven coverage.

EH-1681 HERBICIDE may be tank mixed with other herbicides EPA-registered for use on turfgrass to broaden the weed control spectrum compared to the products alone. These tank mixtures must be used according to the most restrictive label limitations and precautions. No label dosage rate should be exceeded. Follow the labeling of each companion product for precautionary statements, directions for use, dosage rates, and application schedules. Tank mixture directions are for use only in states where the companion products and application site are registered.

**10. Application Timing**

Spring and fall treatments are preferred to summer treatments for older, drought-stressed weeds. Fall applications will control emerged winter annuals and perennials including henbit, chickweed, clover, and ground ivy.

A second broadcast application or a follow-up spot treatment is suggested for more mature weeds, for dense infestations, and for adverse environmental conditions. Do not make more than 2 broadcast treatments of this product per site per year. Spot treatments during the summer may be appropriate for sparse infestations, or as a follow-up treatment.

**Timing Factors Which Affect Weed Control**

- Weed control is more effective when the daytime air temperature is above 50°F, soil moisture is adequate, and target weeds are young and actively growing.
- Rainfast in as little as 3 hours.
- If dry conditions exist, irrigation 24 hours before and 24 hours after the application will increase weed control.
- Higher spray volumes may increase weed control during adverse conditions.

**Timing Factors Which Affect Turfgrass Tolerance**

- Turf species listed on this label may exhibit temporary discoloration under adverse environmental conditions.
- Temperatures over 90°F, moist soil, and high humidity will tend to increase herbicide activity. These conditions will also increase the possibility of temporary turf discoloration.
- Other conditions which may increase the possibility of turf injury include: disease, insect, and nematode stress; low light (shaded) areas, low soil pH, improper mowing, or improper applications of fertilizer and pesticides.
- If injury occurs, turf will resume normal color and growth after mowing.

**For newly seeded areas:**

- The application of this product to grass seedlings until after the second mowing.

**Reseeding interval:**

- Treated areas may be reseeded 1 week after application.

**For newly sodded, sprigged, or plugged areas:**

- The application of this product should be delayed until 3 to 4 weeks after the sodding, sprigging, or plugging operations.

**Irrigation:**

- Rainfall or irrigation occurring within 3 to 4 hours after application of this product may reduce the effectiveness.

**Mowing:**

- Delay mowing 1 to 2 days before and after the application of this product.

**11. Weeds Controlled [101]**

EH-1681 HERBICIDE will control or suppress the following broadleaf weeds.

<b>Broadleaf Weeds</b>			
Annual fleabane	Dock	Kochia	Red sorrel (*sheep sorrel)
Aster, white heath & white prairie	Dogfennel	Knotweed	Roundleaf greenbriar
Bedstraw	Dovefoot geranium	Lambsquarters	Shepherdspurge
Beggarticks	English daisy	Lawn burweed	Spotted spurge
Beggarweed, creeping	False dandelion (*spotted catsear & common catsear)	Lespedeza, common	Spurge
Bindweed	Field bindweed	Lesser celandine	Star of Bethlehem**
Birdsfoot trefoil	(*morningglory & creeping jenny)	Mallow, common	Sunflower
Black medic	Field madder	Matchweed	Thistle
Broadleaf plantain	Field oxeye-daisy	Mouseear chickweed	Velvetleaf (*buttonweed)
Buckhorn plantain	(*creeping oxeye)	Mustard	Venice mallow
Bull thistle	Field pennycress	Nettle	Veronica (*corn speedwell)
Burclover	Filaree, whitestem & redstem	Old world diamond flower	Virginia buttonweed
Burdock, common	Florida pusley	Oxalis (*yellow woodsorrel & creeping woodsorrel)	Virginia creeper
Buttercup, creeping	Ground ivy	Parsley-piert	Western salsify
Carolina geranium	Groundsel	Pennsylvania smartweed	White clover (*Dutch clover, honeysuckle clover, white trefoil, & purplewort)
Carpetweed	Hairy bittercress	Pennywort (*dollarweed)	Wild carrot
Chickweed, common	Hawkweed	Pepperweed	Wild garlic
Chicory	Healall	Pigweed	Wild geranium
Cinquefoil	Henbit	Pineappleweed	Wild lettuce
Clover	Horsenettle	Plantain	Wild mustard
Cocklebur	Horseweed	Poison ivy	Wild onion
Common mullien	Innocence (Blue-eyed Mary)	Poison oak	Wild strawberry
Compassplant	Jimsonweed	Puncturevine	Wild violet
Curly dock		Purple cudweed	Yarrow
Dandelion		Purslane	Yellow rocket
Dayflower		Ragweed	
Deadnettle		Redweed	

\* Synonyms  
 \*\* Use higher rates for best results

**Postemergence control of grassy weeds:**

EH-1681 HERBICIDE will control or suppress specific annual grasses when applied at a rate of 4 to 5 pints/acre. Depending on timing of application, a second application may be needed for adequate control. If necessary, a second application may be made at the same rate, 30 days after the initial application. EH-1681 HERBICIDE works best when applied while the annual grasses are small (pre-tiller) and actively growing, but control can be obtained at all growth stages. Some biotypes may show resistance to PPO inhibiting herbicides.

Soil moisture may affect goosegrass control. Greater control will result when goosegrass plants are actively growing with adequate soil moisture. For best results, apply 12 to 48 hours following irrigation or

rainfall. Avoid making applications when soil is saturated. Do not water or irrigate within 3 to 4 hours after application.

Grassy Weeds	
Goosegrass [¹]	Nimblewill [¹]

[¹Not for use in California]

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in original container in a locked storage area inaccessible to children or pets. Keep from freezing.

**PESTICIDE 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.

### [For Plastic Containers – Nonrefillable with capacities equal to or less than 5 gallons:]

**CONTAINER HANDLING:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Triple rinse [or pressure rinse] container (or equivalent) promptly after emptying.

Triple rinse 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 a 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.]

### [For Plastic Containers – Nonrefillable with capacities greater than 5 gallons:]

**CONTAINER HANDLING:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Triple rinse [or pressure rinse] container (or equivalent) promptly after emptying.

Triple rinse 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. 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 a 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.]

## **LIMITED WARRANTY AND DISCLAIMER**

**IMPORTANT:** Read this LIMITED WARRANTY AND DISCLAIMER before buying or using this product. By opening and using this product, buyer and all users agree to accept the terms of this LIMITED WARRANTY AND DISCLAIMER in their entirety and without exception. If the terms are not acceptable, return this product unopened immediately to the point of purchase, and the purchase price will be refunded in full.

It is impossible to eliminate all risks inherently associated with use of this product. Damage to the treated article, ineffectiveness, or other unintended consequences can result from use of the product under abnormal conditions including weather, presence of other materials, or the manner or use of application, etc. Such factors and conditions are beyond the control of the manufacturer, and **BY PURCHASING AND USING THIS PRODUCT THE BUYER AND ALL USERS OF THIS PRODUCT AGREE TO ACCEPT ALL SUCH RISKS.** Buyer and all users further agree to assume all risks of loss or damage from the use of the product in any manner that is not explicitly set forth in or that is inconsistent with label instructions, warnings and cautions.

The manufacturer warrants only that this product conforms to the chemical description given on the label, and that the product is reasonably suited for the labeled use when applied according to the Directions for Use, subject to the inherent risks described below. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE MANUFACTURER NEITHER MAKES NOR INTENDS ANY OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY EXPRESSLY DISCLAIMED.**

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, LIABILITY OF THE MANUFACTURER, FOR ANY AND ALL LOSSES, DAMAGES, OR INJURIES RESULTING FROM THE USE OF HANDLING OF THIS PRODUCT, WHETHER OR NOT BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE, SHALL BE LIMITED, AT THE MANUFACTURER'S OPTION, TO REPLACEMENT OR THE REPAYMENT OF THE PURCHASE PRICE FOR THE QUANTITY OF PRODUCT WITH RESPECT TO WHICH DAMAGES ARE CLAIMED. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO CASE SHALL THE MANUFACTURER BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THE PRODUCT.** The Manufacturer must be promptly notified in writing of any claims, whether based in contract, tort, negligence, strict liability, or otherwise, to be eligible to receive either remedy stated above.

The terms of this LIMITED WARRANTY AND DISCLAIMER cannot be varied by any written or verbal statements or agreements at the point of sale or elsewhere. No employee or agent of the manufacturer or seller is authorized to vary or exceed the terms of this LIMITED WARRANTY AND DISCLAIMER in any manner.

## **APPENDIX**

### **1. Advertising claims that may be presented on container labeling, advertisements, brochures, and other marketing/sales promotional materials:**

- Shake well before using
- Rainfast [Rainproof] [in as little as] 3 [to 4] hours
- Visible results in [just 24] hours
- Clover control in as little as one week
- Kills clover in as little as one week
- Proven cool-weather performance

- Consistently [Dependable] fast [rapid, speedy] control of tough weeds like clover, plantain, ground ivy and spurge [various other listed weeds].
- EH-1681 HERBICIDE provides rapid [fast, speedy] and effective weed control including white clover, dandelion, ground ivy and spurge in turfgrass.
- Fast-acting, cool-weather performance with visible effects within hours
- Reseed in 1 week
- High selectivity (turfgrass safety) in established cool- and warm-season turfgrass.
- Sites include lawns, golf courses, sod farms, roadsides and many other listed turf sites
- These cool-season and warm-season turfgrass species may be treated: Kentucky bluegrass, perennial ryegrass, tall fescue, creeping and colonial bentgrass (excluding golf greens), Bermudagrass and zoysiagrass.
- Kills [Controls] [goosegrass, nimblewill]
- Labeled for [goosegrass, nimblewill] control
- Fast [Rapid, Quick] [goosegrass, nimblewill] control

## **DOCUMENT CONTROL INFORMATION**

1. **Unique Label Identifier:** 002217-0XXXX.20200515.new-proposed-EH1681 - clean

2. **Reason for Issue:** new registration