UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

January 31, 2020

Robert Hamilton. Ph.D.
Senior Regulatory Scientist
Registration and Regulatory Affairs
Valent U.S.A. LLC
1600 Riviera Avenue, Suite 200
P.O. Box 8025
Walnut Creek, CA 94596-8025

Subject: Registration Review Label Mitigation for Chlorimuron-ethyl
Product Name: V-10364 Herbicide
EPA Registration Number: 59639-194
Application Dates: January 31, 2018
Decision Numbers: 555621

Dear Dr. Hamilton

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with Sulfonylurea Interim Decisions, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

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 the Federal Insecticide Fungicide and Rodenticide Act 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.

A copy of your label stamped "Accepted" is enclosed. Products shipped after 12 months from the date of this amendment must bear the new revised label. Your release for shipment of the product bearing the amended label constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions about this letter, please contact me by phone at 703-350-6249, or via email at Arrington.linda@epa.gov.

Sincerely,

Linda Arrington, Branch Chief
Risk Management and Implementation Branch 4
Pesticide Re-Evaluation Division
Office of Pesticide Programs

Enclosure

CHLORIMURON ETHYL	**GROUP**	**2**	**HERBICIDE**
FLUMIOXAZIN	**GROUP**	**14**	**HERBICIDE**
PYROXASULFONE	**GROUP**	**15**	**HERBICIDE**

[Bracketed information is optional text]

V-10364 Herbicide

BROADLEAF WEED AND ANNUAL GRASS HERBICIDE FOR RESIDUAL CONTROL AND/OR SUPPRESSION OF WEEDS IN SOYBEAN

Active Ingredient	By Wt
Chlorimuron*	6.67%
Flumioxazin**	24.57%
Pyroxasulfone***	31.17%
Other ingredients	37.59%
Total	100.00%

*Ethyl 2-[[[[(4-chloro-6-methoxypyrimidin-2-yl)amino]carbonyl]amino]sulfonyl]benzoate
**2-[7-fluoro-3,4-dihydro-3-oxo-4-(2-propynyl)-2*H*-1,4-benzoxazin-6-yl]-4,5,6,7-tetrahydro-1*H*-isoindole-1,3(2*H*)-dione
***3-[[[5-(difluoromethoxy)-1-methyl-3-(trifluoro-methyl)-1*H*-pyrazol-4-yl]methyl]sulfonyl]-4,5-dihydro-5,5-dimethylisoxazole

V-10364 Herbicide is a water dispersible granule containing 62.41% active ingredient.

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE NEXT [PAGE][PANEL] FOR PRECAUTIONARY AND FIRST AID STATEMENTS.

EPA Reg. No. 59639-194
EPA Est.

NET WEIGHT

ACCEPTED
Jan 31, 2020
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 59639-194

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION

Causes moderate eye irritation. Avoid contact with eyes. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

FIRST AID	
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.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact **800-892-0099** for emergency medical treatment information.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

Applicators and other handlers must wear: long-sleeved shirt and long pants, chemical-resistant gloves made of waterproof material such as polyethylene or polyvinyl chloride, sock and shoes.

For aerial application to soybeans, mixers and loaders must also wear: PF 5 respirator

Follow the 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.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS:

This product is toxic to non-target plants and aquatic invertebrates. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water when disposing of equipment washwaters.

This pesticide is toxic to plants and should be used strictly in accordance with the drift and run-off precautions on this label in order to minimize off-site exposures.

Groundwater Advisory
Chlorimuron-ethyl is known to leach through soil into groundwater under certain conditions as a result of label use. Flumioxazin and pyroxasulfone have properties and characteristics associated with chemicals detected in ground water. These chemicals may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

Surface Water Advisories
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.

This product may impact surface water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a high potential for reaching surface water via runoff for several months or more after application. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce potential loading of pyroxasulfone, its degradation product, 5-difluoromethoxy-1H-pyrazol-4-yl) methanesulfonic acid (M1), and chlorimuron-ethyl from runoff water and sediment. Runoff of this product will be greatly reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

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 area. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

WINDBLOWN SOIL PARTICLES
V-10364 Herbicide has the potential to move off-site due to wind erosion. Soils that are subject to wind erosion usually have a high silt and/or fine to very fine sand fractions and low organic matter content. Other factors which can affect the movement of windblown soil include the intensity and directions of prevailing winds, vegetative cover, site slope, rainfall, and drainage patterns. Avoid applying V-10364 Herbicide if prevailing local conditions may be expected to result in off-site movement.

DIRECTIONS FOR USE

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

READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

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 statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water is: coveralls, waterproof gloves, sock and shoes.

DISCLAIMER, RISKS OF USING THIS PRODUCT, LIMITED WARRANTY AND LIMITATION OF LIABILITY

IMPORTANT: Read the entire Label including this Disclaimer, Risks of Using this Product, Limited Warranty, and Limitation of Liability before using this product. If the terms are not acceptable THEN DO NOT USE THE PRODUCT; rather, return the unopened product within 15 days of purchase for a refund of the purchase price.

RISKS OF USING THIS PRODUCT

The Buyer and User (referred to collectively herein as "Buyer") of this product should be aware that there are inherent unintended risks associated with the use of this product which are impossible to eliminate. These risks include, but are not limited to, injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance of the target pest or weeds to this product, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non-performance, resistance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, disease, moisture conditions, irrigation practices, condition of the crop at the time of application, presence of other materials either applied in the tank mix with this product or prior to application of this product, cultural practices or the manner of use or application, (or a combination of such factors) all of which are factors beyond the control of Valent. The Buyer should be aware that these inherent unintended risks may reduce the harvested yield of the crop in all or a portion of the treated acreage, or otherwise affect the crop such that additional care, treatment and expense are required to take the crop to harvest. If the Buyer chooses not to accept these risks, THEN THIS PRODUCT SHOULD NOT BE APPLIED. By applying this product Buyer acknowledges and accepts these inherent unintended risks AND TO THE FULLEST EXTENT ALLOWED BY LAW, AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

Valent shall not be responsible for losses or damages (including, but not limited to, loss of yield, increased expenses of farming the crop or such incidental, consequential or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. Buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

LIMITED WARRANTY

Valent warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the label and subject to the Risks of Using This Product as described above. To the extent consistent with applicable law AND AS SET FORTH ABOVE, VALENT MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED. No agent or representative of Valent or Seller is authorized to make or create any other express or implied warranty.

LIMITATION OF LIABILITY

To the fullest extent allowed by law, Valent or Seller is not liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. The limitation includes, but is not limited to, loss of yield on all or any portion of the treated acreage, increased care, treatment or other expenses required to take the crop to harvest, increased finance charges or altered finance ratings, emotional or mental distress and/or exemplary damages. TO THE FULLEST EXTENT ALLOWED BY LAW, THE EXCLUSIVE REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF VALENT OR SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT SHALL BE THE RETURN OF THE PURCHASE PRICE OF THIS PRODUCT OR, AT THE ELECTION OF VALENT OR SELLER, THE REPLACEMENT OF THE PRODUCT.

PROMPT NOTICE OF CLAIM

To the extent consistent with applicable law allowing such requirements Valent must be provided notice as soon as Buyer has reason to believe it may have a claim, but in no event later than twenty-one days from date of planting, or twenty-one days from the date of application, whichever is latter, so that an immediate inspection of the affected property and growing crops can be made.

To the extent consistent with applicable law if Buyer does not notify Valent of any claims, in such period, it shall be barred from obtaining any remedy.

NO AMENDMENTS

Valent and Seller offer this product, and Buyer accepts it, subject to the foregoing **Disclaimer, Risks of Using This Product, Limited Warranty** and **Limitation of Liability,** which may not be modified by any oral or written agreement.

TANK MIXES

NOTICE: Tank mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor, to the extent allowed by applicable law.

Read and follow the entire label of each product to be used in the tank mix with this product.

Weed Resistance Management

For resistance management, V-10089 WDG Herbicide is a Group 14 herbicide, Group 15 herbicide and a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to V-10089 WDG Herbicide and other Group 14 herbicides, Group 15 herbicides and Group 2 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

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

- Rotate the use of V-10089 Herbicide or other Group 14, Group 15 or Group 2 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.

- 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 certified crop 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 crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or 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 such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.

- 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 certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.

- For further information or to report suspected resistance, contact Valent U.S.A. LLC at 800-682-5368 or at www.valent.com.

TABLE OF CONTENTS

PRODUCT INFORMATION

V-10364 Herbicide provides residual control of susceptible weeds in soybean. It also provides additional burndown activity when used as part of a burndown program. V-10364 Herbicide can be applied as part of a fall burndown program for residual control of susceptible winter annuals.

Weeds controlled by V-10364 Herbicide are listed in Table 1, Weeds Controlled or Suppressed by Residual Activity of V-10364 Herbicide. Application rates of V-10364 Herbicide vary depending on soil type and organic matter; refer to Application Rates section.

Moisture is necessary to activate V-10364 Herbicide in soil for residual weed control. Dry weather following applications of V-10364 Herbicide may reduce effectiveness. However, when adequate moisture is received after dry conditions, V-10364 Herbicide will control susceptible germinating weeds. When adequate moisture is not received after soil applied treatments of V-10364 Herbicide, weed control may be improved by utilizing shallow cultivation. If weeds begin to emerge, irrigate (1/4 inch of water) or cultivate uniformly with shallow-tillage equipment such as a rotary hoe, that will not damage the crop. Deep cultivation reduces the effectiveness of V-10364 Herbicide.

Crop injury may occur from applications made to poorly drained soils and/or applications made under cool and/or wet conditions. Risk of crop injury can be minimized by using on well drained soils, planting soybeans at least 1.5 inches deep, using high quality seed and completely covering seeds with soil prior to preemergence applications. Treated soil that is splashed onto newly emerged crops may result in temporary crop injury.

RESTRICTIONS AND LIMITATIONS

- Do not apply this product when weather conditions favor spray drift from treated areas.
- Do not make more than one application of V-10364 Herbicide per year.
- Do not apply more than 5.25 oz (0.205 lb ai) of V-10364 Herbicide per acre per year.
- Do not apply more than 0.205 lb ai of V-10364 Herbicide per acre per year.
- Do not graze treated fields or feed treated forage or hay to livestock.
- Do not apply this product through any type of irrigation system.
- Do not use on soils with a composite pH of greater than 7.6.
- When applying by air, observe spray drift management restrictions and precautions.
- Do not apply to frozen or snow covered soil.
- Do not perform any tillage operation after application or residual weed control will be reduced.
- Abnormally warm or wet winters will reduce the length of weed control observed in the spring.
- Do not apply during low-level inversion conditions, including fog.
- Do not mix/load or use within 50 feet of all wells including abandoned wells, drainage wells and sink holes.
- Calibrate sprayers only with clean water away from the well site.

[PRECAUTIONS]
[To avoid crop injury:]

- [Do not tank mix V-10364 Herbicide with chloroacetamide-containing products such as: fluthiamide (Axiom®), s-metolachlor (Dual® II Magnum); dimethenamid (Frontier®), dimethenamid-P (Outlook®) or alachlor (Micro-Tech® or IntRRo®).]
- [Do not apply V-10364 Herbicide within 14 days before or after an application of an organophosphate insecticide on any soybean variety that is not [STS®/Roundup Ready®], as severe crop injury may occur.]
- [Prior to the emergence of any STS/Roundup Ready soybean variety, V-10364 Herbicide can be applied in a tank mixture with an organophosphate insecticide or applied following the application of an organophosphate insecticide.]

Rainfastness
V-10364 Herbicide is rainfast one hour after application. Do not apply V-10364 Herbicide if rain is expected within one hour of application or postemergence efficacy may be reduced.

Soil Characteristics
Application of V-10364 Herbicide to soils with high organic matter and/or high clay content may require higher dosages than soils with low organic matter and/or low clay content. Application to cloddy seedbeds can result in reduced weed control.

Table 1. Weeds Controlled or Suppressed by Residual Activity of V-10364 Herbicide

Common Name	Scientific Name	V-10364 Herbicide Rates[1]			
		3.75 oz/A [All Soil Textures Organic Matter <3%] [Preemergence Followed by Postemergence Program - no glyphosate or ALS Resistant Weeds.]	4.0 oz/A [All Soil Textures Organic Matter <3%] [Preemergence Followed by Postemergence Program - no glyphosate or ALS Resistant Weeds.]	4.5 oz/A [Coarse and Medium Textured soil Organic Matter 3 to 5%] [Preemergence Followed by Postemergence program - glyphosate or ALS Resistant Weeds or Heavy Weed Pressure.]	5.25 oz/A [Fine Textured Soils Organic Matter 3 to 5%] [Non GMO Program - or Heavy Weed Pressure.]
		C = Control or S = Suppression			
BROADLEAF WEED SPECIES					
Bristly Starbur	*Acanthospermum hispidum*	S	S	S	S
Carpetweed	*Mollugo verticillata*	C	C	C	C
Chickweeds					
Common	*Stellaria media*	C	C	C	C
Mouseear	*Cerastium vulgatum*	C	C	C	C
Coffee Senna	*Cassia occidentalis*	S	S	C	C
Copperleaf, Hophornbeam	*Acalypha ostryifolia*	S	S	S	S
Dandelion	*Taraxacum officinale*	C	C	C	C
Eclipta	*Eclipta prostrate*	C	C	C	C
Eveningprimrose, Cutleaf	*Oenothera laciniata*	C	C	C	C
Florida Beggarweed	*Desmodium tortuosum*	S	S	C	C
Florida Pusley	*Richardia scabra*	C	C	C	C
Golden Crownbeard	*Verbesina encelioides*	S	S	C	C
Hairy Indigo	*Indigofera hirsuta*	S	S	C	C
Hemp Sesbania	*Sesbania exaltata*	C	C	C	C
Henbit	*Lamium amplexicaule*	C	C	C	C
Jimsonweed	*Datura stramonium*	C	C	C	C
Kochia	*Kochia scoparia*	C	C	C	C
Lambsquarters, Common	*Chenopodium album*	C	C	C	C

(continued)

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		C = Control or S = Suppression			
BROADLEAF WEED SPECIES					
Little Mallow	*Malva parviflora*	C	C	C	C
Marestail/Horseweed	*Conyza canadensis*	C	C	C	C
Morningglories[2]					
Entireleaf	*Ipomoea hederacea* var. *Integriuscula*	S	S	C	C
Ivyleaf	*Ipomoea hederacea*	S	S	C	C
Red/Scarlet	*Ipomoea coccinea*	S	S	C	C
Smallflower	*Jacquemontia tamnifolia*	C	C	C	C
Tall	*Ipomoea purpurea*	S	S	C	C
Mustard, Wild	*Brassica kaber*	C	C	C	C
Palmer Amaranth	*Amaranthus palmeri*	C	C	C	C
Nightshades					
Black	*Solanum nigrum*	C	C	C	C
Eastern Black	*Solanum ptycanthum*	C	C	C	C
Hairy	*Solanum sarrachoides*	C	C	C	C
Pigweeds					
Redroot	*Amaranthus retroflexus*	C	C	C	C
Smooth	*Amaranthus hybridus*	C	C	C	C
Spiny Amaranth	*Amaranthus spinosus*	C	C	C	C
Tumble	*Amaranthus albus*	C	C	C	C
Prickly Sida (Teaweed)	*Sida spinosa*	C	C	C	C
Puncturevine	*Tribulus terrestris*	C	C	C	C
Purslane, Common	*Portulaca oleracea*	C	C	C	C
Radish, Wild	*Raphanus raphanistrum*	C	C	C	C
Redmaids	*Calandrinia ciliata* var. *menziessii*	C	C	C	C
Shepherd's-purse	*Capsella bursa-pastoris*	C	C	C	C
Spotted Spurge	*Euphorbia maculate*	C	C	C	C
Ragweeds					
Common	*Ambrosia artemisiifolia*	S	S	C	C
Giant	*Ambrosia trifida*	S	S	S	S
Russian Thistle	*Salsola iberica*	S	S	C	C

(continued)

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		C = Control or S = Suppression			
BROADLEAF WEED SPECIES					
Smartweeds					
Ladysthumb	*Polygonum persicaria*	S	S	S	S
Pennsylvania	*Polygonum pensylvanicum*	S	S	S	S
Spurred Anoda	*Anoda cristata*	S	S	C	C
Tropic Croton	*Croton glandulosus*	S	S	C	C
Velvetleaf	*Abutilon theophrasti*	C	C	C	C
Venice Mallow	*Hibiscus trionum*	C	C	C	C
Waterhemps					
Common	*Amaranthus rudis*	C	C	C	C
Tall	*Amaranthus tuberculatus*	C	C	C	C
Wild Buckwheat	*Polygonum convolvulus*	S	S	S	S
Wild Poinsettia	*Euphorbia heterophylla*	S	S	C	C
Wormwood, Biennial	*Artemisia biennis*	S	S	S	S
GRASS WEED SPECIES					
Barnyardgrass	*Echinochloa crus-galli*	C	C	C	C
Bluegrass, Annual	*Poa annua*	C	C	C	C
Cheat	*Bromus secalinus*	C	C	C	C
Crabgrass					
Large	*Digitaria sanguinalis*	C	C	C	C
Smooth	*Digitaria ischaemum*	C	C	C	C
Cupgrass, Southwestern	*Eriochloa gracilis*	C	C	C	C
Downy Brome	*Bromus tectorum*	C	C	C	C
Foxtails					
Giant	*Setaria faberi*	C	C	C	C
Green	*Setaria viridis*	C	C	C	C
Yellow	*Setaria glauca*	C	C	C	C
Goosegrass	*Eleusine indica*	C	C	C	C

(continued)

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		C = Control or S = Suppression			
GRASS WEED SPECIES					
Johnsongrass (seedling)	*Sorghum halepense*	C	C	C	C
Lovegrass, California	*Eragrostis diffusa*	C	C	C	C
Panicums					
Fall	*Panicum dichotomiflorum*	C	C	C	C
Texas	*Panicum texanum*	C	C	C	C
Red Rice	*Oryza sativa*	C	C	C	C
Ryegrass					
Italian	*Lolium multiflorum*	C	C	C	C
Rigid	*Lolium rigidum*	C	C	C	C
Signalgrass, Broadleaf	*Brachiaria platyphylla*	C	C	C	C

[1]If weed is resistant to ALS-inhibiting herbicides (Group 2), then control will be reduced.
[2]Morningglory species are not adequately controlled on fine soils with greater than 3% organic matter.

APPLICATION RATES

Apply V-10364 Herbicide early preplant, prior to planting or preemergence (after planting, but prior to emergence).

Application rates of V-10364 Herbicide vary depending on soil type and organic matter, soil textures are defined as:

Coarse	Medium	Fine
sandy loam, loamy sand	loamy, silt-loam, silt, sandy clay, sandy clay loam	silty clay, silty clay loam, clay, clay loam

Organic Matter	Soil Texture		
	Course	Medium	Fine
	Rates (oz/A)		
0.5 to 3%	3.75	3.75 to 4.5	4.5 to 5.25
3 to 5%	3.75 to 4.5	3.75 to 5.25	4.5 to 5.25

DIRECTIONS FOR USE IN SOYBEAN (Burndown, Preplant and Preemergence)

Apply V-10364 Herbicide to soybeans early preplant, prior to planting or preemergence (after planting). Preemergence application of V-10364 Herbicide must be made within 3 days after planting and prior to soybean emergence to control weeds listed in Table1, Weeds Controlled or Suppressed by Residual Activity of V-10364 Herbicide. Application after the soybeans have begun to crack, or are emerged, will result in severe crop injury. Do not apply V-10364 Herbicide when soybeans have begun to crack. Application rates of V-10364 Herbicide vary depending on soil type and organic matter.

Timing To Weeds

V-10364 Herbicide may be applied at [3.75 to 4.5 oz (0.1463 to 0.176 lb ai)] [3.75 to 5.25 oz (0.1463 to 0.205 lb ai)] per acre as part of a Burndown program, preplant or preemergence application for weed control, as well as to assist in Burndown of many annual and perennial weeds where soybeans will be grown. For control of emerged weeds, choose the most appropriate burndown tank mix partner based on emerged weeds at the time of application. Consider resistant biotypes when choosing burndown partner for V-10364 Herbicide.

Do not apply V-10364 Herbicide when weeds are under stress due to drought, excessive water, extremes in temperature, disease or low humidity. Weeds under stress tend to become less susceptible to herbicidal action. V-10364 Herbicide is most effective when applied under warm sunny conditions.

Fall application should be made when soil temperature falls below 50ºF at a 2 inch depth.

MIDWEST REGION STATES SPECIFIC USE DIRECTIONS

In the following midwestern states: IA (except Hamburg-Ida-Monona, Nicolett-Clarion and Webster soils), IL, IN, KS, MI, MO (except bootheel), NE (fields South of Route 30 and East of Route 281), OH, OK, PA and WI (South of Interstate 90 between Lacrosse and Madison and South of Interstate 94 between Madison and Milwaukee).

Restrictions and Limitations

- Do not use more than 4.0 oz (0.1560 lb ai) per acre of V-10364 Herbicide on soils with a composite pH of greater than 6.8. V-10364 Herbicide, at 3.75 oz (0.1463 lb ai) per acre, will provide suppression of the listed weeds.
- Do not use more than 4.0 oz (0.1560 lb ai) per acre of V-10364 Herbicide in WI (South of Interstate 90 between Lacrosse and Madison and South of Interstate 94 between Madison and Milwaukee).
- Do not apply additional chlorimuron-ethyl-containing herbicides to fields treated with V-10364 Herbicide.
- Do not apply to soils with a history of nutrient deficiency, such as iron chlorosis, as injury may occur.
- Do not perform any tillage operation after application or residual weed control will be reduced.

SOUTHERN REGION STATES SPECIFIC USE DIRECTIONS

In the following southern region states: AL, AR, DE, FL, GA, KY, LA, MD, MO (bootheel), MS, NC, NJ, SC, TN, TX, VA and WV.

Restrictions and Limitations

- Do not apply additional chlorimuron-ethyl-containing herbicides to fields treated with V-10364 Herbicide at 4.0 oz (0.1560 lb ai) per acre, that have a soil pH of 7.0 or greater, except in the states of AL, AR, FL, GA, KY, LA, MS, MO (bootheel), NC, SC, TN and TX, where up to 0.5 oz/A of Classic® may be applied.
- Do not apply to Black Belt soils in Alabama and Mississippi with a soil pH greater than 7.0 or a history nutrient deficiency, such as of iron chlorosis, as injury may occur.

Crop Rotational Interval In Months

Crop	Southern Region[1]		Midwest Region[2]
	Soil pH less than 7.0	Soil pH 7.0 or greater	All Soil pH
Soybean	Immediately	Immediately	Immediately
Field Corn[3]	10	18	10
Wheat	4	4	4
Alfalfa, Barley, Clover Rice, Rye, Ryegrass, Sorghum, Tobacco (Transplant), Tomato (Transplant)	18	18	18
Cabbage, Cucumber, Cotton, Flax, Lentils, Mustard, Peanut, Pumpkin, Sunflower, Sweet Corn, Watermelon, Dry Bean, Kidney Bean, Pea, Snap Bean	18	30	18
Canola (Rapeseed), Carrot, Onion, Potato, Sugar Beet and any other crops not listed	18	30	30

[1] Southern Region includes the states of AL, AR, DE, FL, GA, KY, LA, MD, MO bootheel, MS, NC, NJ, SC, TN, TX, VA and WV.

[2] Midwest Region includes the states of IA (except Hamburg-Ida-Monona, Nicolett-Clarion and Webster soils), IL, IN, KS, MI, MO (except bootheel), NE (fields south of Route 30 and east of Route 281), OH, OK and PA.

[3] Field corn is defined to include only that corn grown for grain or silage, popcorn and seed corn. However, because seed corn inbred lines may vary in their sensitivity to trace amounts of herbicide carryover, Valent cannot warrant that seed corn can be re-cropped without damage or yield loss. User should seek the advice of their seed corn company agronomist regarding inbred sensitivity to herbicides prior to planting any inbred lines.

APPLICATION INFORMATION

SPRAYER PREPARATION

Before applying V-10364 Herbicide, start with clean, well maintained application equipment. The spray tank, as well as all hoses and booms, must be cleaned to ensure no residue from the previous spraying operation remains in the sprayer. Some pesticides, including but not limited to, the sulfonylurea and phenoxy herbicides, (i.e., Classic and 2,4-D respectively) are active at very small amounts and can cause crop injury when applied to susceptible crops. The spray equipment must be cleaned according to the manufacturer's directions for the last product used before the equipment is used to apply V-10364 Herbicide. If two or more products were tank mixed prior to V-10364 Herbicide application, follow the most restrictive cleanup procedure.

MIXING INSTRUCTIONS

1. Fill clean spray tank 1/2 to 2/3 of desired level with clean water.
2. If a drift retardant is to be used, add 10 lbs of spray grade ammonium sulfate per 100 gallons of spray solution.
3. To ensure a uniform spray mixture, preslurry the required amount of V-10364 Herbicide with water prior to addition to the spray tank. Use a minimum of 1 gallon of water per 10 oz of V-10364 Herbicide.
4. While agitating, slowly add the preslurried V-10364 Herbicide to the spray tank. Agitation should create a rippling or rolling action on the water surface.
5. If tank mixing V-10364 Herbicide with other labeled herbicides, add water soluble bags first, followed by dry formulations, flowables, emulsifiable concentrates and then solutions. Prepare no more spray mixture than is required for the immediate spray operation.
6. Add any required adjuvants.
7. Fill spray tank to desired level with water. **Agitation should continue until all spray solution has been applied**.
8. Mix only the amount of spray solution that can be applied the day of mixing. Apply V-10364 Herbicide within 6 hours of mixing.

APPLICATION METHODS

V-10364 Herbicide is applied by ground or by air. Use clean application equipment in good repair. Nozzles should be uniformly spaced on boom and frequently checked for accuracy.

CARRIER VOLUME AND SPRAY PRESSURE

GROUND APPLICATION

Burndown Application (Prior to Crop Emergence): To ensure thorough coverage in burndown applications, use 15 to 60 gals spray solution per acre. Use 20 to 60 gals per acre if dense vegetation or heavy crop residue is present. Nozzle selection should meet manufacturer's gallonage and pressure recommendations for postemergence herbicide application. Do not use flood jet nozzles

Preemergence Application (Conventional Tillage): To ensure uniform coverage, use 10 to 30 gals of spray solution per acre for conventional tillage applications. Nozzle selection should meet manufacturer's gallonage and pressure recommendations for preemergence herbicide application.

AERIAL APPLICATION

When used as part of a burndown weed control program, apply V-10364 Herbicide in 7 to 10 gallons of water per acre. Application at less than 7 gallons per acre may provide inadequate control. When used for preemergence weed control, apply V-10364 Herbicide in 5 to 10 gallons of water per acre. The higher gallonage applications generally afford more consistent weed control. Do not exceed the nozzle manufacturer’s recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

SPRAY DRIFT

Aerial Application

- Do not release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to use a coarse or coarser droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

Ground Boom Applications

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy. For all other ground applications, the nozzle must be no more than 4 feet above the ground.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a coarse or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.

BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

- Do not spray when wind velocity is less than 2 mph or more than 10 mph.
- Do not apply this product by air within 40 ft of non-target plants including non-target crops.
- Do not apply this product by air within 100 ft of emerged cotton crops.
- Do not apply this product by air within 40 ft of streams, wetlands, marshes, ponds, lakes and reservoirs.

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 – 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 manufacturer's recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should 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 should 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 ft 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 INVERSIONS

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. Avoid applications during temperature inversions.

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.

SPRAYER CLEANUP

Spray equipment, including mixing vessels and nurse tanks, must be cleaned each day following V-10364 Herbicide application. After V-10364 Herbicide is applied, the following steps must be used to clean the spray equipment:

1. Completely drain the spray tank, rinse the sprayer thoroughly, including the inside and outside of the tank and all in-line screens.
2. Fill the spray tank with clean water and flush all hoses, booms, screens and nozzles.
3. To remove V-10364 Herbicide from the spray system, use ”Valent Tank Cleaner” from Valent U.S.A. LLC, Top off tank, add Valent Tank Cleaner at 1 gallon per 100 gals of water, circulate through sprayer for 5 minutes, and then flush all hoses, booms, screens and nozzles for a minimum of 15 minutes. If diaphragms are being used on the spray boom, loosen diaphragms before flushing the spray system, allowing cleaning solution to spray through the open diaphragm. If spray lines have any end caps, they must be loosened before flushing the system, allowing cleaning solution to spray through the loosened caps. Allow the cleaning solution to remain in the pressurized spray system (spray tank, hoses and boom) overnight before flushing the system for a minimum of 15 minutes.
4. Drain tank completely.
5. Add enough clean water to the spray tank to allow all hoses, booms, screens and nozzles to be flushed for 2 minutes.
6. Remove all nozzles and screens and rinse them in clean water.

Spray equipment, including all tanks, hoses, booms, screens and nozzles, should be thoroughly cleaned before it is used to apply post-emergence pesticides. Equipment with V-10364 Herbicide residue remaining in the system may result in crop injury to the subsequently treated crop.

ADDITIVES

When an adjuvant is to be used with V-10364 Herbicide, Valent USA LLC recommends the use of a Chemical Producers and Distributors Association certified adjuvant. Either a crop oil concentrate or methylated seed oil which contains at least 15% emulsifiers and 80% oil or a non-ionic surfactant at 0.25% v/v, may be used when applying V-10364 Herbicide as part of a burndown program. The addition of a crop oil concentrate or methylated seed oil may increase the burndown activity on certain weeds such as cutleaf eveningprimrose and Carolina geranium. Verify mixing compatibility qualities by a jar test.

A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lbs/A or a 28 to 32% nitrogen solution at 1 to 2 qts/A) may be added to the spray mixture along with either a crop oil concentrate, methylated seed oil or non-ionic surfactant to enhance weed control. The addition of a nitrogen source does not replace the need for a crop oil concentrate, a methylated seed oil or a non-ionic surfactant.

JAR TEST TO DETERMINE COMPATIBILITY OF ADJUVANTS AND V-10364 HERBICIDE

When using V-10364 Herbicide and an adjuvant, such as in stale seed bed or reduced tillage situations, a jar test should be performed before mixing commercial quantities of V-10364 Herbicide, when using V-10364 Herbicide for the first time, when using new adjuvants or when a new water source is being used.

1. Add 1 pt of the water to a quart jar. The water should be from the same source and temperature as which will be used in the spray tank mixing operation.
2. Add 1 g of V-10364 Herbicide to the quart jar for every 3 oz of V-10364 Herbicide per acre being applied (2 g if 6 oz/A is the desired V-10364 Herbicide rate), gently mix until product goes into suspension.
3. Add 60 ml (4 Tbsps or 2 fl oz) of the crop oil or methylated seed oil to the quart jar or 1 ml of non-ionic surfactant if it is being used in place of oil, gently mix.
4. If nitrogen is being used, add 16 ml (1 Tbsp or 0.5 oz) of the 28 to 32% nitrogen source to the quart jar. If ammonium sulfate is being used, add 19 g AMS to the quart jar in place of the 28 to 32% nitrogen.
5. Place cap on jar, invert 10 times, let stand for 15 minutes, evaluate.
6. An ideal tank mix combination will be uniform and free of suspended particles. If any of the following conditions are observed the choice of adjuvant should be questioned:
    a) Layer of oil or globules on the mixture's surface.
    b) Flocculation: fine particles in suspension or as a layer on the bottom of the jar.
    c) Clabbering: Thickening texture (coagulated) like gelatin.

CROP FAILURE

If the crop treated with V-10364 Herbicide is lost due to a catastrophe, such as hail or other forms of inclement weather, soybeans can be replanted immediately, provided no more than 6 oz/A of V-10364 Herbicide have been used on the lost crop. Crop injury may occur if these restrictions are not followed.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE

Keep pesticide in original container.
Store in a cool, dry, secure place.
Do not put formulation or dilute spray solution into food or drink containers.
Do not contaminate food or foodstuffs.
Do not store or transport near feed or food.
Not for use or storage in or around the home.
For help with any spill, leak, fire or exposure involving this material, call day or night **(800) 892-0099**.

PESTICIDE DISPOSAL

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

CONTAINER HANDLING

Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container 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.

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