# City of Santa Barbara MATERIAL EXEMPTION REQUEST FOR PESTICIDE APPLICATION

| Dept     | _Parks_          | I                                   | PM Coordina   | ator              | Jazmin Lel  | Blanc        | Pho          | ne <b>805-5</b> 6 | 64-5513_               |     |
|----------|------------------|-------------------------------------|---------------|-------------------|-------------|--------------|--------------|-------------------|------------------------|-----|
| Pestici  | de Applic        | ator (employe                       | e or compan   | y) Name _         | Parks D     | ivision, Ste | eve Biddle_  | Phone             | 805-564-5439           |     |
| Applica  | ation Site_      | _Cabrillo Ba                        | ll Field      | Specif            | ic Location | turfgra      | SS           |                   | _                      |     |
|          |                  |                                     |               |                   |             |              |              |                   |                        |     |
| Date(s)  | ) of Applic      | cation <b>TB</b>                    | D during no   | rmally sch        | eduled fiel | d closure p  | eriod_Date   | e of request_     | <b>7/21/2022</b> Produ | ıct |
| Name     | Ch <u>ar</u>     | nge Up                              | Active Ingre  | dient <b>MCI</b>  | PA, Floxyp  | yr, Dicamb   | a            |                   |                        |     |
|          |                  | SpeedZone S                         | Southern      |                   | 2,4-D,      | Mecoprop     | -p, Dcamb    | a, Carfentra      | azone                  |     |
| Numbe    |                  | cations:                            |               |                   |             |              |              |                   |                        |     |
| •        | Type:<br>Other _ | □ En                                | nergency &    | Trial 🗅           |             |              |              |                   |                        |     |
| Produc   | t type:          | Herbicide X                         | ☐ Insection   | ide 🖵 Fu          | ıngicide    | ☐ Other      |              |                   |                        |     |
| Applica  | ation:           | □ Ornamenta                         | al Turf       | X G               | olf         | □ Vector C   | ontrol       | ☐ Park Tr         | ree                    |     |
|          |                  | ☐ Right of Wa                       | ay 🛭 Vertebr  | ate pest          |             | ☐ Other      |              |                   |                        |     |
| Is the p | oesticide (      | on the <i>Tiered</i>                | Materials Lis | <i>t</i> ? □ No   | Yes         | If yes, prov | ide the Tier |                   | -                      |     |
|          |                  | s not on the 7<br>rials List for in |               |                   |             | •            | ening inforr | mation. See       | e the IPM Strategy and |     |
|          | EPA Re           | g # <b>228-4</b>                    | <b>45</b> Si  | ignal <b>Wa</b> ı | rning       |              | Estimated    | d Tier <b>Yel</b> | low                    |     |
|          | EPA Re           | g # <b>2217</b> -                   | 835           | Cau               | ution       |              |              | Ye                | llow                   |     |
|          | Restrict         | ed □ No □                           | Yes/Describ   | e                 |             |              |              |                   |                        |     |
|          | P Waste          | e                                   | PBT           | V                 | VA PBT      |              | Persistent   |                   | Mobil                  |     |
|          | Cancer           |                                     | Repro         | 1                 | Neuro       |              | Endocrine    |                   | _                      |     |
|          | Bird             |                                     | Fish          | E                 | Bees        |              | Wildlife     |                   |                        |     |

# Describe the pest problem.

Weed growth of many kinds are outgrowing major portions of the kikuyu grass in these playing fields. In a normal low impact park setting, kikuyu grass can outcompete many of our weeds and other weeds can just be mowed. But kikuyu cannot hold up well to organized sports and especially groups that wear cleats. The intense use of the turf by sports teams creates a viscous cycle of injury to the grass and reduced health, which allows more and more establishment of weed cover and weed seed banks.

These fields currently have high fluctuation of surface type and quality including bare areas, inconsistent surfaces, and some areas that are slippery where more broadleaf and clover are predominant. Low turf quality leads to field closures for renovations and unavailability of fields for the community. There are only 6 sports fields in the City parks system, so closures make a significant impact to many groups who rely on them. We have tried a number of different approaches in mechanical and cultural practices and at this point we believe we cannot overcome the challenges imposed by high wear to these sports fields without chemical weed control.

# Describe the management goals and objectives for this site.

Our goal is to use low volumes of selective herbicides in fenced areato get close to a turf mixture surface that is consistent with softball, baseball, soccer, kickball, ultimate Frisbee and other programmed uses. By mixing the limited selective herbicide applications with over-seeding, full renovations, and other beneficial cultural non-chemical programs, we believe we can achieve a much higher quality and safer play field.

# City of Santa Barbara MATERIAL EXEMPTION REQUEST FOR PESTICIDE APPLICATION

#### What is the damage threshold for this pest at this site?

10% coverage of playing surface by invasive weeds would be our desired threshold.

Describe the monitoring of the pest and potential predators that was conducted and the control methods previously used at the site.

Previously hand weeding was tried for 1 year with limited to no success. This was also very labor intensive and costly. There are no selective 'green' alternatives. This site is inspected at a minimum 1X per week and often 2-3 times per week.

Describe how the product would be applied including frequency, concentration, and method of application.

Change Up and SpeedZone Southern would be applied with a boom sprayer following label directions at a rate of 2 pints/acre with two applications during field closure time.

#### What non-target impacts are anticipated?

There are no anticipated non-target impacts. Target area would be only inside a fenced area with 6' high fences.

How does the use of this product help achieve the site management goals? Note if this is curative or preventative.

The site management goal for this site is to provide a consistent playing field that can be mowed to desired heights. This turf should be mostly free of noxious weeds, healthy, and as dense as possible. This goal is both curative and preventative. In terms of curative management we are trying to reduce a major infestation of many invasive weed species to encourage and allow the transition to a majority turf-only field. In terms of preventative management, we hope to use a regular program of these 2 herbicides at a limited volume to keep weeds from going to seed and keep weeds down to a low level. We will also implement mechanical and cultural practices to prevent seed production.

How will the effectiveness of this product be monitored? Include expected results and indicators of success.

This site is walked by staff multiple times per week to check playing field, facilities, and irrigation needs. Checks will initially be daily to observe results for the first week and then go to a more normal 2 times per week inspection to monitor weed reduction and impacts to existing turf. Indicators of success include dying weeds and the spread of health, green grass.

Describe site conditions, for example consider the following: restricted access, distance from a creek or body of water, degree of runoff, site is a pesticide-free zone, etc.

The playing field areas are fenced and accessed through locked gates. No herbicides will be applied outside the fenced areas. For Cabrillo Ball Field, the nearest body of water is the Pacific Ocean with the closest location at 200 yards away. Foliar spray will only be applied under desirable conditions when there is no precipitation or high winds. No runoff to watersheds is anticipated and low volumes of active ingredients will be used.

List alternatives considered, alternatives implemented and why they were eliminated.

Hand weeding was tried for a 1 year period. This was unsuccessful due to size, types of weeks not controlled by hand picking and birds eating seeds and spreading them. This program was so costly it was not sustainable in the long term budget as well as yielding low control rates. Since turf grass is the desired species and there are currently no effective selective 'green' alternatives, this was not an option.

Justification: describe why is applying this pesticide is the best solution and why a less-hazardous chemical, non-chemical option or taking no action is not feasible.

# City of Santa Barbara MATERIAL EXEMPTION REQUEST FOR PESTICIDE APPLICATION

Due to the nature of sports play, a near monocultural turf surface is the desired playing field for group and completive sports. We have up until this time tried to provide a quality playing surface with no chemicals and only cultural and mechanical controls. This has led to sports fields that were installed as a monoculture hybrid Bermuda to what our consultant called a weed salad. These fields have gone through multiple closures due to 30% or greater loss of any plant playing surface.

We anticipate that the improvement of turf at these fields will ultimately save our department money open the sports field to more play on the calendar by improving durability and shorter closure periods. Future renovation and maintenance of the turf will be significantly helped by having less bare ground to start over and improved density, making recovery faster and of a higher quality. There will also be reduced competition with weeds that outgrow the turf and choke it out.

# Was outside expertise utilized? ☐ No X Yes / Describe

Our in-house expertise includes two former Golf Course Superintendents, one former Golf Course Assistant Superintendent with experience totaling over 40 years. All 3 have CA/ DPR licenses for those periods. We also had in field consultations with experts from NuFarm agro, Corteva agro, and 2 sales representative from Sierra Pacific Turf Supply whose previous experience includes a tenure at UC Riverside turf program and consulting turf expert and former golf course Superintendent. We have utilized the vast field experience with turf and a strong emphasis on pursuing healthy soil and turf as our primary motivation to this proposed program of achieving a high quality sports field surface.

# Describe future plans to prevent using the chemical again.

Vote Tally Disposition: □ Approved □ Denied/Reason

If approved, follow the attached best management practices.

Comments:

The product will be used as a trial to determine whether it may be valuable to use at other sites or on a programmatic basis for some athletic fields. As weed populations go down our goal is to transition to a 1.5 pint per acre rate or even lower. We also plan to use more mechanical control methods such as verti-cutting and lowering mower heights when possible to cut off seed from weeds to prevent them being viable. To ultimately be successful, we will need to employ all of the above strategies in these challenging sites.

| Signatures   |                   |                      |  |  |  |  |  |
|--|-------------------|----------------------|--|--|--|--|--|
| Department IPM Coordin                                     | nator             | City IPM Coordinator |  |  |  |  |  |
| Completed by the City of Santa Barbara Staff IPM Committee |                   |                      |  |  |  |  |  |
| Vote Tally Disposition: ☐ Approved                         | ☐ Denied/Reason   |                      |  |  |  |  |  |
|  |                   |                      |  |  |  |  |  |
| If approved, follow the attached best mana                 | gement practices. |                      |  |  |  |  |  |
| Comments:  |                   |                      |  |  |  |  |  |
|  |                   |                      |  |  |  |  |  |
|  |                   |                      |  |  |  |  |  |
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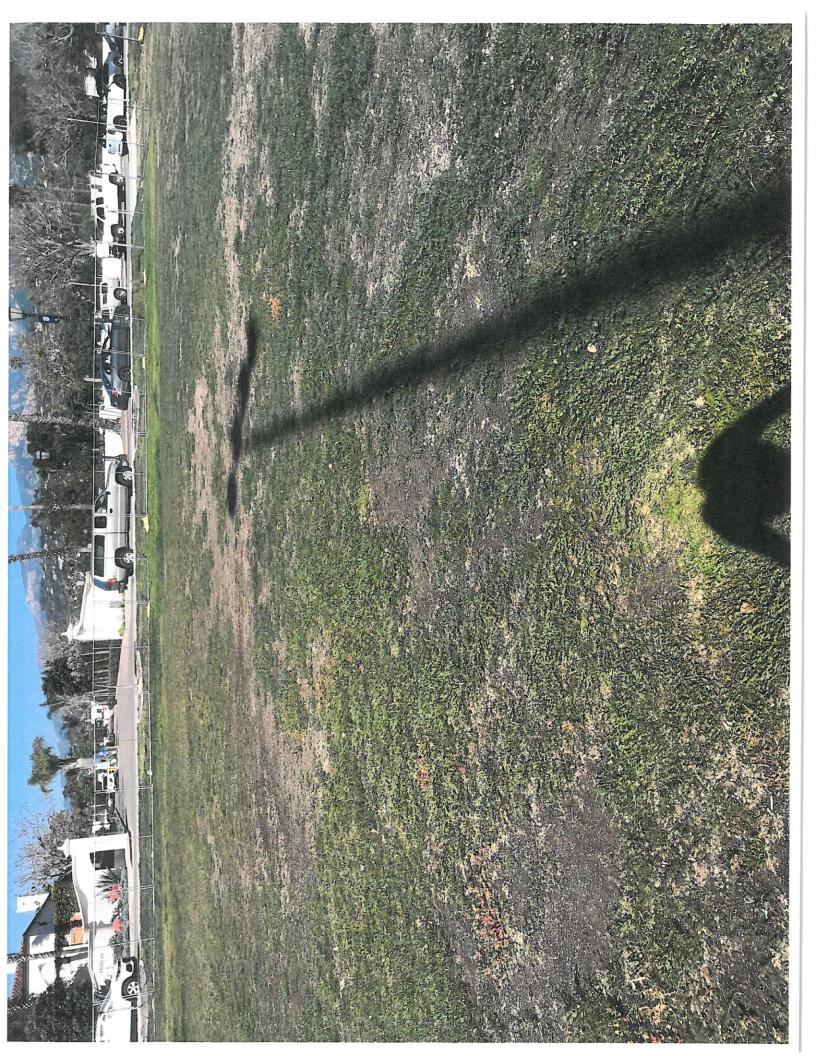
**Completed by the IPM Advisory Committee** 

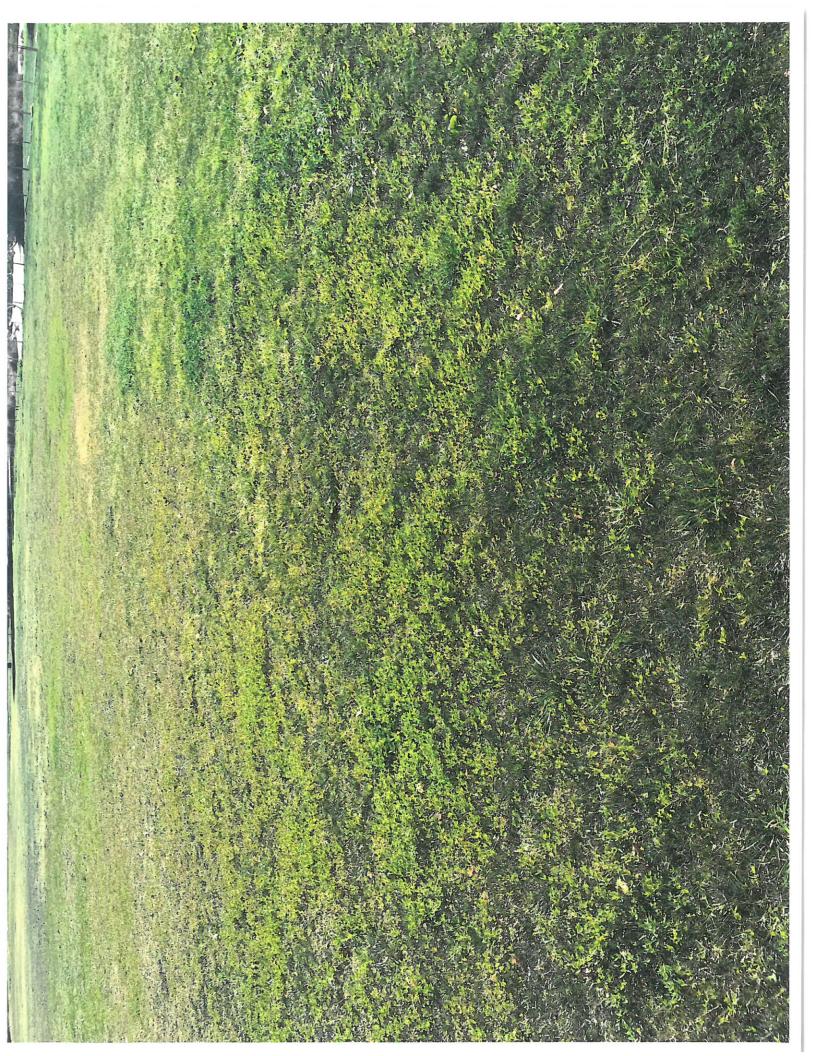






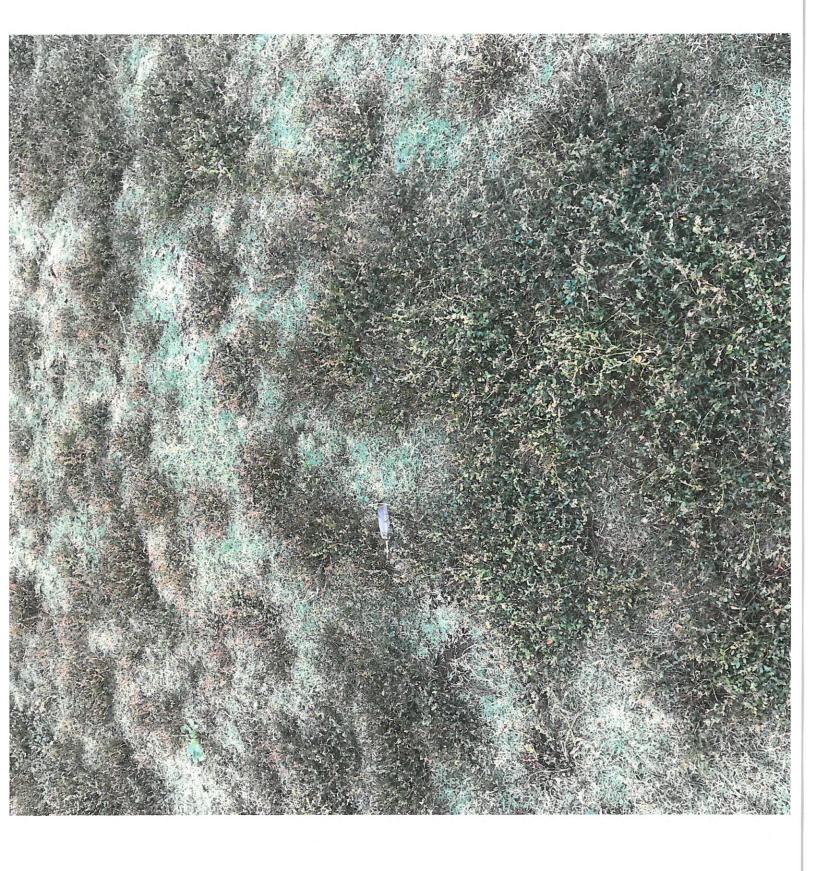


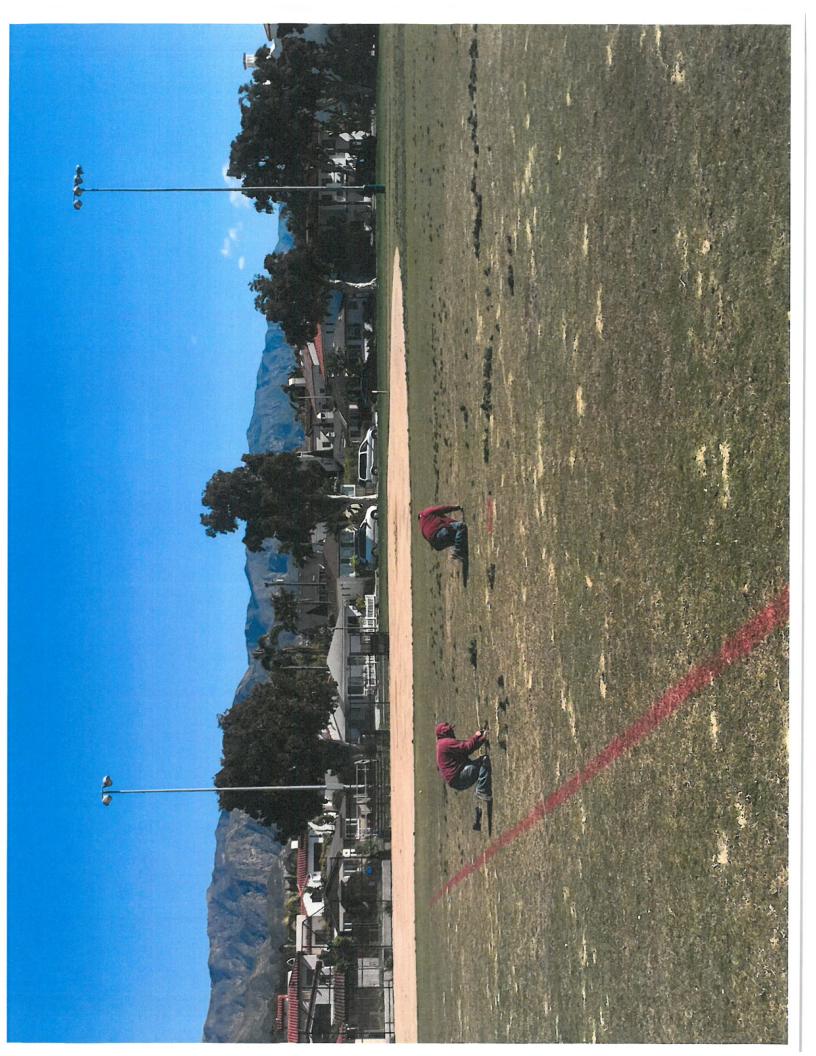














SELECTIVE HERBICIDE

STRIKE OUT THE WEED CONTROL GAP FOR WINNING TURFGRASS.

Change Up™ premium selective herbicide combines MCPA, fluroxypyr and dicamba to deliver powerful weed control results. An excellent herbicide for warm- and cool-season turf, Change Up controls more than 200 broadleaf weeds and it starts working quickly to strike out weeds and help reduce callbacks. Plus, Change Up is ideal for any accounts that may be sensitive to the use of 2,4-D on the property.

## COMPETITIVE ADVANTAGES

#### MAXIMUM POWER. CONVENIENT FORMULA.

- Transition zone convenience of spraying both warm- and cool-season turfgrass without having to change herbicides
- Offers the power of three proven herbicides in one convenient pre-mixed formulation
- Contains MCPA ideal for accounts requesting a 2,4-D alternative
- Labeled for warm- and cool-season turfgrass including Bahiagrass, Creeping bentgrass, Bermudagrass, Kentucky bluegrass, Ryegrass, Fescue, Carpetgrass, Centipedegrass, Zoysiagrass and St. Augustinegrass
- Reduced callbacks following a quick visual response and excellent weed control
- Contains the pyridine herbicide fluroxypyr for unparalleled clover control
- Broad spectrum excellent control of more than 200 broadleaf weeds including dandelion, plantain, oxalis, chickweed, thistles and other hard-to-control species
- Convenient to use tank mix compatible with a number of liquid fertilizers and iron formulations

# AT-A-GLANCE INFO

EPA REG. NO. 228-445

ACTIVE INGR. MCPA (41.68%),

fluroxypyr (4.17%), dicamba (4.17%)

FORMULATION liquid

CHEM. FAMILY phenoxycarboxylic acid,

pyridines and benzoic acids

HRAC NO.

MODE OF ACT. auxin growth regulators

SIGNAL WORD warning

RESTRICTED no

PACKAGE SIZE 2.5 gal (2 per case), 30 gal

RESIDENTIAL

COMMERCIAL

17. . . . . .

GOLF TURF

POST-EMERGE

O SOD FARMS

MORE PRODUCTS EXCLUSIVELY FROM NUFARM

Celero

Escalade 2

SureGuard SC



Grow a better tomorrow



# Selective Herbicide

FOR SELECTIVE BROADLEAF WEED CONTROL IN ORNAMENTAL LAWNS AND TURF GRASSES.

CONTAINS MCPA, FLUROXYPYR AND DICAMBA

CONTROLS: Dandelion, Chickweed, Black medic, Knotweed, Plantain, Oxalis, Clover, Cocklebur, Thistle and many other species of broadleaf weeds listed on this label.

## **ACTIVE INGREDIENTS:**

| Dimethylamine Salt of 2-Methyl-4-Chlorophenoxyacetic Acid*      |           |
|---|-----------|
| 2-pyridinyl)oxy]acetic Acid. 1-methylheptyl ester**             | 6.00%     |
| Dicamba (3,0-Dichiolo-0-Allisic Acid)                           | 4 470/    |
| OTHER INCHEDIENTS   | 38 78%    |
| TOTAL:  | 100.000/  |
| Isomer Specific Method, Equivalent to:                          |           |
| *2-Methyl-4-Chlorophenoxyacetic Acid                            | lbs./gal. |
| [(4-artifilo-3-3-dicfiloro-6-filoro-2-pyriginyi)oxylacetic acid | lba /aal  |
| ***3,6-Dichloro-o-Anisic Acid                                   | lhs /gal  |

DO NOT SELL, DISTRIBUTE OR USE THE PRODUCT IN NASSAU AND SUFFOLK COUNTY IN NEW YORK.

# KEEP OUT OF REACH OF CHILDREN WARNING / AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.

(If you do not understand the label, find someone to explain it to you in detail.)

SEE INSIDE BOOKLET FOR FIRST AID AND
ADDITIONAL PRECAUTIONARY STATEMENTS

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300 For Medical Emergencies Only, Call (877) 325-1840

EPA Reg. No. 228-445

Manufactured for Nufarm Americas Inc. 11901 S. Austin Ave., Alsip, IL 60803



Under some conditions this product may have a potential to run-off to surface water or adjacent land. Where possible, use methods which reduce soil erosion, such as no till, limited till and contour plowing; these methods also reduce pesticide run-off. Where feasible, use application techniques such as T-banding and in-furrow techniques which incorporate the pesticide into the soil. Use of vegetation filter strips along rivers, creeks, streams, wetlands, etc. or on the downhill side of fields where run-off could occur will minimize water run-off is recommended.

Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore, the likelihood of increased spray drift. Avoid spraying during conditions of low humidity and/or high temperatures.

# AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 48 hours.

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

- · coveralls worn over short-sleeved shirt and short pants
- · chemical-resistant footwear plus socks
- · chemical-resistant gloves made of any waterproof material
- 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. For Turf use, the maximum number of broadcast applications per treatment site is 2 per year.

Do not allow people (other than applicator) or pets on treatment area during application. Do not enter or allow others to enter the treated area until sprays have dried.

This product is for use on Ornamental Turf Lawns (Residential, Industrial and Institutional), Parks, Cemeteries, Athletic Fields and Golf Courses (Fairways, Aprons, Tees\* and Roughs); also for use on Sod Farms.

\*Excluding Bentgrass Tees.

## SPRAY DRIFT MANAGEMENT

Preventing spray drift at the application site is the responsibility of the applicator. The interaction of many 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.

Apply only as a medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles. Apply only when the wind speed is 2–10 mph at the application site.

For groundboom application, do not apply with a nozzle height greater than 4 feet above the crop canopy.

Avoid drift of spray mist to vegetables, flowers, ornamental plants, shrubs, trees and other desirable plants. Do not use on Dichondra, nor on lawns or turf where desirable clovers are present. Avoid fine mists. Use lawn type sprayer with coarse spray as wind drift is less likely. Avoid contact with exposed feeder roots of ornamentals and trees. Do not allow the herbicide solution to mist, drip, drift, or splash from treated areas onto desirable broadleaf plants as small amounts of this product can damage sensitive plants near the treated area. If desirable plants are accidentally sprayed, immediately rinsing leaves with water may reduce or eliminate plant damage.

Maximum control of weeds will be obtained from spring or early fall applications when weeds are actively growing. The degree of weed control and duration of effect will vary with weed size and density, spray rate and coverage, and growing conditions before, during, and after the time of treatment. Use the higher rate for hard-to-control weeds. Avoid broadcast applications when air temperature exceeds 90°F. When using in small, spot treatment applications in temperatures over 90°F, turf injury may occur. Use added caution when treating Carpetgrass and St. Augustinegrass and air temperature exceeds 80°F.

# **APPLICATION RESTRICTIONS**

- Do not apply more than 3 pints of this product per acre per application (1.5 lbs MCPA ae, 0.15 lbs Fluroxypyr ae, 0.15 lbs Dicamba ae).
- Do not apply more than 2 broadcast applications of this product to the same treatment site per year, excluding spot treatments.
- Do not apply more than 6 pints of this product per acre per year, including all broadcast and spot treatments combined.
- The minimum retreatment interval for this product is 21 days.
- Do not apply this product to lawn or turf during spring transition (green-up).
- Do not exceed specified dosages for any area; be particularly careful within the dripline of tree and other ornamental species.
- · Do not apply to newly seeded grasses until well established.
- Do not apply by air.
- Do not apply this product through any type of irrigation system.

#### MIXING INSTRUCTIONS

Fill spray tank with water. Start agitation and slowly add the specified amount of concentrate. Maintain continuous agitation after mixing and during application. If this product is allowed to stand in tank for extended periods of time, some separation may occur. Reagitate before use.

## ORNAMENTAL LAWNS AND TURF

This product may be applied by broadcast or spot treatment application methods.

#### Rates for Ornamental Lawns and Turf

For Bluegrass, Ryegrass and Fescue, apply 2 to 3 pints per acre. For Creeping Bentgrass use 1.25 pints per acre. For Common and Hybrid Bermudagrass, Bahiagrass, Carpetgrass, Centipedegrass and Zoysiagrass apply 1.5 to 2.5 pints per acre. For St. Augustinegrass apply 1.0 pint per acre.

Make broadcast applications of 1.25 to 3 pints per acre in 20 to 240 gallons of water per acre (or spot treatment application of 0.46 to 1.10 fl. oz. in 0.5 to 5.5 gallons of water per 1,000 square feet) to control weeds growing in turf grasses.

**Lower Volume Equipment:** Use as little as 5 gallons of water per acre. Use only application equipment that is capable of spreading a uniform droplet, wetting each weed surface.

**NOTE:** For all grasses (1) avoid double coverage resulting from overlap unless temporary turf injury can be tolerated and (2) use reduced rates if grass is stressed from heat, drought, etc.

### SOD FARMS

This product is also intended for use on sod farms. This herbicide provides selective broadleaf control in warm season and cool season turfgrass established for commercial sod production.

#### **Timing**

Apply this herbicide to broadleaf weeds that are actively growing. Follow-up applications may be required for dense infestations of perennial and biennial weeds.

The application of this product to newly sodded, sprigged, or plugged grasses should be delayed until 3 to 4 weeks after the sodding, sprigging, or plugging operations. Apply this herbicide to grass seedlings after the second mowing. Also, applications to dormant Bermudagrass, dormant Zoysiagrass and dormant Bahiagrass are suggested.

#### **Rates for Sod Farms**

For Bluegrass, Ryegrass and Fescue, apply 2 to 3 pints per acre. For Creeping Bentgrass use 1.25 pints per acre. For Common and Hybrid Bermudagrass, Bahiagrass, Carpetgrass, Centipedegrass and Zoysiagrass apply 1.5 to 2.5 pints per acre. For St. Augustinegrass apply 1.0 pint per acre. Spray volume for Sod Farm application is 5 to 175 gallons per acre.

Generally, the lower application rates will provide satisfactory control of sensitive weeds. The higher application rates will be required for dense infestations of perennial weeds, for adverse/extreme environmental conditions, or for weeds beyond the appropriate growth stages.

#### OTHER NON-CROP AREAS

(fencerows, hedgerows, roadsides (including aprons and guard rails), ditches, rights-of-way, utility, pipelines, powerlines, railroads, airports, commercial plants, storage and lumber yards, barrier strips and firebreaks, equipment areas, nurseries and ornamental plantings, fuel tank farms, pumping stations and other similar industrial sites)

For broadcast application to control broadleaf weeds, mix at a rate of 2 to 3 pints per acre. Spray volume for these applications is 50 to 300 gallons of water per acre. Thoroughly saturate all weeds with spray mixture. Apply any time between the time when plants come into full leaf (Spring) to when the plants begin to go dormant. Best results are obtained when weeds are young and actively growing. Do not cut weeds until herbicide has translocated throughout the plant causing root death. For small broadleaf weeds, use the lower rate. Heavy, dense stands require the higher rate with high water volume.

For small (spot) applications with small tank sprayers, apply at the rate of 0.75 to 2.0 ounces of this product per gallon of water and spray to thoroughly wet all foliage.

For control of woody plants, apply to both stems and foliage any time from the time foliage is completely matured until the time plants start to go dormant. All leaves, stems and suckers must be completely wet to the ground line for effective control. Certain species are more resistant to this herbicide and may display regrowth. Mix thoroughly before spraying.

#### COMPATIBILITY

This product can be mixed with some liquid fertilizers or liquid iron materials. Because liquid fertilizers and liquid iron differ in pH, free ammonia content, density, salt concentration and percentage of water, a compatibility test (given below) is recommended prior to mixing in the application equipment. All regulations, either State or Federal, relating to the application of liquid fertilizers or liquid iron and this product must be strictly followed. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. The following compatibility test should always be performed prior to full-scale mixing.

If you do not agree with or do not accept any of the directions for use, the warranty disclaimers, or limitations of liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.

RV042216[2]

Change Up is a Trademark of Nufarm Americas Inc.
All other trademarks are the property of their respective owners.

TOTAL 100.00%





**ACTIVE INGREDIENTS:** 

Dicamba acid..... 0.54% OTHER INGREDIENTS: ...... 85.64%

#### THIS PRODUCT CONTAINS:

0.52 lb. 2,4-dichlorophenoxyacetic acid equivalent per gallon or 6.96%. 0.20 lb. (+)-R-2-(2-methyl-4-chlorophenoxy) propionic acid equivalent per gallon or 2.66%.

0.05 lb. 3,6-dichloro-o-anisic acid equivalent per gallon or 0.67%. 0.04 lb. Ethyl  $\alpha$ ,2-dichloro-5-[4(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl]-4-fluorobenzenepropanoate or 0.54%.

Contains Petroleum Distillate

Isomer Specific by AOAC Methods.

# 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.)



#### PRECAUTIONARY STATEMENTS

#### **Hazards to Human and Domestic Animals**

CAUTION: Harmful if absorbed through the skin. Avoid contact with skin, eyes, or clothing. Harmful if swallowed.

#### Personal Protective Equipment (PPE)

Some materials that are chemical resistant to this product are barrier laminate, nitrile rubber, neoprene rubber or Viton. If you want more options, follow the instructions for category E on a EPA chemical resistance category selection chart.

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

- · long-sleeved shirt and long pants,
- · shoes and socks,
- · chemical resistant gloves,
- · 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**

Containers over 1 gallon and less than 5 gallons: Mixers and loaders who do not use a mechanical system (probe and pump) to transfer the contents of this container must wear coveralls or a chemical-resistant apron in addition to the other required PPE.

Containers of 5 or more gallons: Do not open-pour product from this container. A mechanical system (such as a probe and pump or spigot) must be used for transferring the contents of this container. If the contents of a non-refillable pesticide container are emptied, the probe must be rinsed before removal. If the mechanical system is used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4)], the handler PPE requirements may be reduced or modified as specified in

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 170.240 (d)(4-6), the handler PPE requirements may be reduced or modified as specified in the

#### **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: | <ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Do not induce vomiting unless told to by a poison control center or doctor.</li> <li>Do not give any liquid to the person.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul> |
| If on skin:   | Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.   |
| If in eyes:   | <ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>                               |
| If inhaled:   | Move person to fresh air.     If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.     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. For additional information in case of emergency, call toll free 1-877-800-5556.

NOTE TO PHYSICIAN: Contains petroleum distillate - vomiting may cause aspiration pneumonia.

#### **Environmental Hazards**

This pesticide may be 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.

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Application around a cistern or well may result in contamination of drinking water or groundwater.

# **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.

#### Wind Speed

Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition and there are not sensitive areas (including, but not limited to, bodies of water, known habitat for nontarget species, nontarget crops) within 250 feet downwind. If applying a Medium spray, leave one swath unsprayed at the downwind edge of the treated field.

#### **Temperature Inversions**

If applying at wind speeds less than 3 mph, the applicator must determine if: a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

#### 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.

2,4-D esters may volatilize during conditions of low humidity and high temperatures. Do not apply during conditions of low humidity and high temperatures.

#### 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.

#### Equipment

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

Additional requirements for ground boom application: Do not apply with a nozzle height greater than 4 feet above the turf canopy.

#### 5. WHERE TO USE:

SpeedZone Southern Broadleaf Herbicide for Turf provides selective broadleaf control in warm season and cool season turfgrass in five (5) use sites.

- Institutional sites are defined as turf areas around 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 (fairways, aprons, and roughs), and office buildings.
- Ornamental sites include turfgrass established around residences, parks, streets, retail outlets, cemeteries, industrial and institutional buildings, recreation areas, fairgrounds, areas adjacent to athletic fields and paved areas.
- Residential/domestic sites are defined as areas associated with the household or home life including, but not limited to apartment complexes, condominiums, and patient care areas of nursing homes, mental institutions, hospitals, or convalescent homes.
- · Agricultural site: Commercial sod production
- 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 rightsof-ways, railroad yards, railroad crossings and railroad bridge abutments; Utility rights-of-way: telephone, pipeline, electrical powerlines, and communication transmission lines.

#### **Prohibitions of Sites:**

- Do not apply to any body of water such as lakes, streams, rivers, ponds, reservoirs, or estuaries (salt water bays). 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 wetlands (swamps, bogs, potholes, or marshes).
- Do not apply to agricultural irrigation water or on agricultural irrigation ditchbanks and canals.
- Do not apply to agricultural drainage water or on agricultural ditchbanks.

#### Turfgrass tolerance:

• The turfgrass tolerance to this product may vary and temporary turfgrass yellowing may occur on St. Augustinegrass and certain varieties (F1) hybrids of hybrid bermudagrass. SpeedZone Southern Broadleaf Herbicide for Turf may injure certain turfgrass species. Environmental conditions and certain spray tank additives (eg. adjuvants, wetting agents, surfactants), liquid fertilizers, and tank mixtures containing other emulsifiable concentrates may reduce the selectivity on the turfgrass.

#### **Prohibitions:**

- Do not apply this product to bentgrass greens, carpetgrass, dichondra, legumes, and lawns where desirable clovers are present.
- Do not broadcast apply this product when ambient temperatures are above 85°F, some injury may be expected with spot treatments when air temperatures exceed 85°F. For St. Augustinegrass see Table 1 for specific temperature restrictions.

# 6. APPLICATION SCHEDULES:

Early postemergent applications of SpeedZone Southern Broadleaf Herbicide for Turf are recommended for annual, biennial, and perennial weeds. Apply this product to broadleaf weeds that are young and actively growing for the best results. SpeedZone Southern Broadleaf Herbicide for Turf combines a contact herbicide with systemic herbicides and provides little or no residual activity at recommended use rates.

SpeedZone Southern Broadleaf Herbicide for Turf may be applied as a single broadcast application or as a follow-up broadcast application in the spring, summer, or fall. Spring and fall treatments under adequate soil moisture conditions are preferred to the summer treatments. Generally, summer broadcast applications to older, drought stressed weeds are less effective.

Follow-up applications as spot treatments with a minimum 30 day interval are recommended for more mature weeds, for dense infestations, and for adverse environmental conditions.

Spot treatments during the summer may be appropriate for sparse infestations, or as a follow-up treatment, or any time broadleaf weeds are susceptible. Apply on a spray-to-wet basis for the best results.

Extremes in environmental conditions e.g. temperature and moisture, soil conditions, and cultural practices may affect the activity of SpeedZone Southern Broadleaf Herbicide for Turf. Under warm moist conditions, herbicide symptoms may be accelerated. While under very dry conditions, the expression of herbicide symptoms is delayed, and weeds hardened off by drought are less susceptible to SpeedZone Southern Broadleaf Herbicide for Turf.

#### For newly seeded areas:

The application of SpeedZone Southern Broadleaf Herbicide for Turf to grass seedlings is recommended after the second mowing.

# For newly sodded, sprigged, or plugged areas:

The application of SpeedZone Southern Broadleaf Herbicide for Turf to newly sodded, sprigged, or plugged grasses should be delayed until 3 to 4 weeks after the sodding, sprigging, or plugging operations.

#### For dormant turf:

Applications to dormant bermudagrass, dormant zoysiagrass, and dormant bahiagrass are suggested.

# 7. CULTURAL TIPS FOR IMPROVED CONTROL: Irrigation:

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

 Do not apply this product immediately before rainfall or irrigation. Rainfast in 3 hours. Do not irrigate or water the turfgrass within 3 hours after application. If dry conditions exist, irrigation 8 hours before and 8 hours after application is recommended.

## Mowing:

Delay mowing 2 days before and until 2 days after the application of this product.

## Reseeding interval:

Treated areas may be reseeded 1 week after application.

# 8. 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 beyond the appropriate growth stages.

#### SPOT TREATMENTS WITH HAND OPERATED SPRAYERS (INCLUDING BACKPACK SPRAYERS, COMPRESSION SPRAYERS, AND KNAPSACK SPRAYERS):

- · Calibration and proper application are essential when using this
- · Over application or rates above those recommended on this labeling including excessive overlaps of this product can cause turf
- Uniform applications are essential when using this product.
- · Hand-held techniques: Spray wands fitted with 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 flat fan nozzle should be held stationary at the proper height. Side-to-side motions result in uneven coverage. To avoid excessive spray pattern overlaps, a spray colorant may be used.
- For cool season turfgrass, mix 1.5 to 2.2 fl. oz. of this product per one (1.0) gallon of water for treatment of approximately 1,000 sq. ft of turfgrass. Apply any time the emerged broadleaf weeds are
- · For warm season turfgrass other than St. Augustinegrass, mix 0.75 to 1.5 fl. oz. of this product per one (1.0) gallon of water for treatment of approximately 1,000 sq. ft of turfgrass. For St. Augustinegrass, higher spray volumes (more than 2 gallons/1,000 square feet) are recommended.
- · Apply any time the emerged broadleaf weeds are susceptible.
- Do not apply more than 2 spot treatments per season. A minimum of 30 days is required between applications.
- · Do not use tank mixture combinations, unless your experience indicates that the tank mixture is effective and will not result in turf injury. 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 recommendations are for use only in states where the companion products and application site are registered.

#### 9. BROADLEAF WEEDS CONTROLLED:

This product will control or suppress the following broadleaf weeds. Apply any time the emerged broadleaf weeds are susceptible.

#### **BROADLEAF WEEDS**

Aster, white heath & white prairie Bedstraw

Beggarweed, creeping

Bindweed Black medic Broadleaf plantain Buckhorn plantain Bull thistle

Burclover Burdock, common

Buttercup, creeping Carpetweed

Chickweed, common

Chicory Cinquefoil Clover

Compassplant Curly dock Dandelion Dayflower Deadnettle Dock Dogfennel

Dollarweed (\*pennywort)

English daisy False dandelion (\*spotted catsear & common catsear)

Field bindweed

(\*morningglory & creeping jenny) Field oxeve-daisy (\*creeping oxeye) Filaree, whitestem

& redstem Florida betony Florida pusley Ground ivy

Groundsel Hawkweed Healall Henbit

Innocence (Blue-eyed Mary)

Knotweed Lambsquarters Lawn burweed Lespedeza, common Mallow, common Matchweed Mouseear chickweed Old world diamond flower Oxalis (\*yellow woodsorrel & creeping woodsorrel)

Parsley-piert Pennsylvania smartweed

Pepperweed Pigweed Pineappleweed Plantain Poison ivy Poison oak Puncturevine Purple cudweed Purslane

Ragweed Redweed

Red sorrel (\*sheep sorrel) Shepherd's purse

Spurge Thistle

Veronica (\*corn speedwell) Virginia buttonweed White clover (\*Dutch clover, honeysuckle clover, white trefoil,

& purplewort) Wild carrot

(cont. on next column)

# **BROADLEAF WEEDS** (cont.)

Wild garlic Wild geranium Wild lettuce Wild mustard Wild onion \*Synonyms

Wild strawberry Wild violet Yarrow Yellow rocket

#### POSTEMERGENCE CONTROL OF GRASSY WEEDS:

This product will control or suppress specific annual grasses when applied at a rate of 4-5 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. This product 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.

Common Name Goosegrass\*

Scientific Name Eleusine indica

\*Not 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 nonrefillable containers 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 incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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 nonrefillable containers 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 incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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. (cont. on next page)



# SAFETY DATA SHEET

An Employee-Owned Company

Issue Date 11-Nov-2014 Revision Date 23-Jan-2020 Version 5

# 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier.

Product Name SPEED ZONE® Southern Broadleaf Herbicide for Turf

Other means of identification

Product Code PBI FP 6561076
EPA Pesticide Registration Number 2217-835
Product Size 4/1 U. S. Gal.

Recommended use of the chemical and restrictions on use

Recommended Use Herbicide

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address Company Name Manufacturer

PBI-Gordon Corporation
P.O. Box 860350
Shawnee, KS 66286
Shawnee, KS 66286

Emergency telephone number

24 Hour Emergency Phone Number Chemtrec 1-800-424-9300

#### 2. HAZARDS IDENTIFICATION

#### Classification

**OSHA Regulatory Status** 

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| Acute dermal toxicity              | Category 4 |
|------------------------------------|------------|
| Skin Corrosion/Irritation Category | Category 2 |
| Aspiration hazard                  | Category 1 |
| Acute Aquatic Toxicity             | Category 2 |
| Chronic Aquatic Toxicity           | Category 2 |
| Flammable liquids                  | Category 4 |

#### Label elements

## **Emergency Overview**

## Signal word

Danger

#### Hazard statements

- · Harmful in contact with skin
- Causes skin irritation
- · May be fatal if swallowed and enters airways
- · Toxic to aquatic life with long lasting effects
- Combustible liquid



call a physician.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated

clothes and shoes. If symptoms persist, call a physician.

Inhalation Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical

attention immediately. Aspiration into lungs can produce severe lung damage. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Delayed pulmonary

edema may occur. If symptoms persist, call a physician.

**Ingestion** Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water.

Never give anything by mouth to an unconscious person. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Call a physician.

Self-protection of the first aider Remove all sources of ignition. Ensure that medical personnel are aware of the material(s)

involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give

mouth-to-mouth resuscitation. Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms No information available

Indication of any immediate medical attention and special treatment needed

should not be employed unless the risk is justified by the presence of additional toxic substances. Contains petroleum distillate - vomiting may cause aspiration pneumonia.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Dry chemical. Carbon dioxide (CO2). Alcohol resistant foam.

Unsuitable extinguishing media No information available.

<u>Specific hazards arising from the chemical</u>
In the event of fire and/or explosion do not breathe fumes. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Explosion data

Sensitivity to mechanical impact None. Sensitivity to static discharge None.

Special protective equipment for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Use personal protective equipment as required. See

section 8 for more information. Take precautionary measures against static discharges. Do not touch or walk through spilled material. Avoid contact with skin, eyes or clothing. Ensure

adequate ventilation. Keep people away from and upwind of spill/leak.

Environmental precautions

Environmental precautions Prevent entry into waterways, sewers, basements or confined areas Do not flush into

surface water or sanitary sewer system Prevent further leakage or spillage if safe to do so Prevent product from entering drains See Section 12 for additional ecological information Avoid release to the environment Dispose of contents/container to an approved waste

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved

respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be

provided in accordance with current local regulations.

General hygiene considerations Do not eat, drink or smoke when using this product. Contaminated work clothing should not

be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.

Pensky-Martens Closed Cup (PMCC)

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Liquid
Appearance Liquid
Color Amber
Odor Esters

Odor threshold No information available

Property Values Remarks • Method

pH Not applicable

Melting point/freezing point <35 °F

Boiling point / boiling range > 93 °C / 199 °F

Flash point 93 °C / 199 °F

Evaporation rate < 1

Flammability (solid, gas) No data available None known Flammability Limit in Air None known

Upper flammability limit: No data available
Lower flammability limit: No data available

 Vapor pressure
 No data available
 None known

 Vapor density
 No data available
 None known

Specific Gravity 0.8994
Water solubility Emulsifiable

Solubility in other solventsNo data availableNone knownPartition coefficientNo data availableNone knownAutoignition temperatureNo data availableNone knownDecomposition temperatureNo data availableNone known

Other Information

Liquid Density 7.45 pounds/gallon
Bulk density No information available

# 10. STABILITY AND REACTIVITY

#### Reactivity

No information available.

#### Stability

Stable under recommended storage conditions

#### Possibility of hazardous reactions

None under normal processing.

#### **Hazardous polymerization**

Will not occur.

#### Conditions to avoid

Heat, flames and sparks.

#### **Incompatible materials**

Serious eye damage/eye irritation May cause slight irritation.

Respiratory or skin sensitization Not a skin sensitizer.

Germ cell mutagenicity No information available.

Carcinogenicity The International Agency for Research on Cancer (IARC) lists chlorophenoxy herbicides in

its Group 2B (limited evidence for Carcinogenicity in humans.) The US EPA has given the chlorophenoxy Herbicides 2,4-D, 2,4-DP, MCPP, and MCPA a Class D classification (not classifiable as to human carcinogenicity.) More current 2,4-D lifetime feeding studies in rats and mice did not show carcinogenic effects and a recent World Health Organization (WHO)

review of 2,4-D toxicology has concluded that 2,4-D is not a carcinogen.

| Chemical name   | ACGIH | IARC     | NTP | OSHA |
|---|-------|----------|-----|------|
| 2,4-D, 2-ethylhexyl ester<br>1928-43-4                                    | •     | Group 2B | -   | Х    |
| R(+)2(2<br>Methyl-4-chlorophenoxy)pro<br>pionic acid (MCPP)<br>16484-77-8 |       | Group 2B | _   | X    |

Legend

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard May be fatal if swallowed and enters airways.

#### 12. ECOLOGICAL INFORMATION

#### **Ecotoxicity**

Toxic to aquatic life with long lasting effects.

| Chemical name                          | Algae/aquatic plants   | Fish  | Toxicity to microorganisms  | Crustacea  |
|--|--|---|---|--|
| Trade Secret                           | -  | 45: 96 h Pimephales<br>promelas mg/L LC50<br>flow-through 2.4: 96 h<br>Oncorhynchus mykiss mg/L<br>LC50 static 2.2: 96 h<br>Lepomis macrochirus mg/L<br>LC50 static   | -   | 4720: 96 h Den-dronereides<br>heteropoda mg/L LC50   |
| 2,4-D, 2-ethylhexyl ester<br>1928-43-4 | 30: 120 h Pseudokirchneriella subcapitata mg/L EC50 30: 120 h Pseudokirchneriella subcapitata mg/L EC50 static | 7.8: 96 h Oncorhynchus<br>mykiss mg/L LC50 static<br>11.5: 96 h Lepomis<br>macrochirus mg/L LC50<br>static 6 - 8.7: 96 h<br>Oncorhynchus mykiss mg/L<br>LC50 flow-through   | -   |  |
| Trade Secret                           | 500: 96 h Desmodesmus<br>subspicatus mg/L EC50 500:<br>72 h Desmodesmus<br>subspicatus mg/L EC50               | 1740: 96 h Pimephales<br>promelas mg/L LC50<br>flow-through 1730 - 1910: 96<br>h Pimephales promelas<br>mg/L LC50 static 100000 -<br>500000: 96 h Lepomis<br>macrochirus µg/L LC50<br>static 1910000: 96 h<br>Pimephales promelas µg/L<br>LC50 static | EC50 = 2041.4 mg/L 5 min<br>EC50 = 2186 mg/L 30 min<br>EC50 = 3980 mg/L 24 h<br>EC50 = 4400 mg/L 17 h | 1897 - 2072: 48 h Daphnia<br>magna mg/L EC50 Static<br>1983: 48 h Daphnia magna<br>mg/L EC50 |

# PBI FP 6561076 - SPEED ZONE® Southern Broadleaf Herbicide for Turf

Helbicide for Turi

Transport hazard class(es) 9
Packing group

Special Provisions A97, A158, A197

Description UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D,

2-ethylhexyl ester), 9, III

IMDG Limited quantity applies with an inner packaging less than 5 L or gross package weight less

than 30 kg.

UN number UN3082

UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Transport hazard class(es) 9
Packing group III

EmS-No. F-A, S-F Special Provisions 274, 335, 969

Description UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D,

2-ETHYLHEXYL ESTER), 9, III, MARINE POLLUTANT

# 15. REGULATORY INFORMATION

#### U.S. EPA Label Information

# EPA Pesticide Registration Number 2217-835

Federal Insecticide, Fungicide, Rodenticide Act Regulations

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

#### **EPA Pesticide Label**

Caution

Keep out of the reach of children

PRECAUTIONARY STATEMENTS

Hazards to Human and Domestic Animals

CAUTION: Harmful if absorbed through the skin. Avoid contact with skin, eyes, or clothing. Harmful if swallowed.

Environmental Hazards: This pesticide may be 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. This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Application around a cistern or well may result in contamination of drinking water or groundwater.

#### International Inventories

Not Listed **TSCA** Not Listed DSL/NDSL Not Listed **EINECS/ELINCS** Not Listed **ENCS IECSC** Not Listed Not Listed **KECL** Not Listed **PICCS** Not Listed AICS

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

evaluating the conditions of use and designing the appropriate protective mechanisms to prevent employee exposures, property damage, or release to the environment. PBI Gordon Corporation assumes no responsibility for injury to the recipient or third persons, or for any damage to any property resulting from misuse of the product.

**End of Safety Data Sheet** 

To summarize what we discussed via phone this week:

Your best option for controlling weeds and keeping a healthy stand of turf in your mixed stand on Bermuda and other cool season grasses is to utilize a broadleaf post emergent herbicide. Most of these herbicides require a 4 week waiting period to seed after application. However, this is still our best option since you will need to actively seed throughout the season to replenish lost turf through repeated foot traffic on the sports fields.

The best products to use would be the following: Speedzone Southern 4 Speed XT Change Up

My recommendation would be to rotate between Speedzone Southern and Change Up throughout the season. Change Up is available in a Quart size containers that Sierra Pacific Turf Supply can get through Monterey Lawn & Garden. The quart size will be critical since it is the only non-restricted use size in California. Please be sure to follow the labels on these products and be aware of their annual maximums and seeding interval restrictions.

2 other things: seed selection and soil minerals

Seed selection: when seeding bare areas it is important to consider the cultivar and or variety. Sierra Pacific Turf Supply has 2 great seeds that will be ideal for sports turf. One is Double Down. Double Down is a blend of Tetraploid ryegrass seed that is more drought and traffic resistant. It's not bulletproof...but much better than other ryegrass varieties. Another is Jumpstart. Jumpstart is KBG and germinates at the same rate as ryegrass. This is a big deal since most KGB takes 10-14 days to germinate. Under ideal conditions, jumpstart will germinate in 3-5 days. Keep in mind it is slower to establish than ryegrass, but a great variety to consider nonetheless. This is normally available in 80/20 mixes or straight KBG.

Lastly is the Calcium content of your soil. I'm not sure what your soil conditions are. However, if they are low in Calcium, compaction now becomes not only a mechanical problem from foot traffic, but also a mineral problem. Basically soils that are deficient in Calcium can be suceptible to extreme compaction issues and make it almost impossible for seed to establish and existing grass to flourish (I.e. sports fields). So, just a reminder really. A quick indicator is if you have more grass in your chalk lines than in the actual field...you might be deficient in Ca. However, a soil test is the best way to find out. If you need one, Jeff can help you out with that.

Have a great weekend and a wonderful 4th of July!

P.s. please excuse any typos. Long week

Kind Regards,

Ryan Nichols Sales & Marketing Director