VELPAR® DF VU

HEXAZINONE | GROUP 5 | HERBICIDE

Herbicide

Dispersible Granules

Active Ingredient	By Weight
Hexazinone [3-cyclohexyl-6-(dimethylamino) -1-methyl-1,3,5-triazine-2,4(1H,3H)-dione]	75%
Other Ingredients	25%
Total	**100%**

EPA Reg. No. 101563-187 **EPA Est. No. 81134-CHN-1**

KEEP OUT OF REACH OF CHILDREN
DANGER PELIGRO

SKU# 85803824
7511-1117 D00000231B 221216AV2
Net Weight: 20 Pounds
Nonrefillable Container

See Leaflet for Complete Precautionary Statements and Directions for Use.

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

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 eye. Call a poison control center or doctor for treatment advice.

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

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for medical emergencies involving this product.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER

Corrosive, causes irreversible eye damage. Harmful if swallowed. Do not get in eyes or on clothing. Avoid contact with skin. Wash thoroughly with soap and water after handling.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

All handlers must wear a minimum of: long sleeved shirt, long pants, shoes, socks and protective eyewear. Additional required PPE for specific activities/crops are included in the application instructions for each crop.

Mixers and loaders supporting applications to Forestry, Christmas Trees, Pasture/Rangeland, Bermudagrass/ Bahiagrass, and Uncultivated areas including Rights-of- Way must wear a minimum of a NIOSH-approved particulate filtering facepiece respirator with any N, R or P filter; OR a NIOSH-approved elastomeric particulate respirator with any N, R or P filter; OR a NIOSH-approved powered air purifying respirator with HE filters.

In addition, when applying to uncultivated areas (including rights-of way) using aerial application equipment, mixers and loaders must use closed mixing and loading systems that meet the requirements listed in the WPS for agricultural pesticides [40 CFR 170.607(d)(2)(i) &(ii)] for inhalation protection.

For all use sites

In addition, all applications using aerial equipment must use an enclosed cab that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.305] for inhalation protection.

USER SAFETY RECOMMENDATIONS

USERS SHOULD: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product and as soon as possible wash thoroughly and put on clean clothing.

ENVIRONMENTAL HAZARD

SURFACE WATER ADVISORY

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

GROUND WATER ADVISORY

The active ingredient, hexazinone, in this product is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground-water contamination.

NON-TARGET ORGANISM ADVISORY

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.

DIRECTIONS FOR USE

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

VELPAR® DF VU HERBICIDE must be used only in accordance with instructions on this label or in supplemental ENVIRONMENTAL SCIENCE U.S., LLC 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.

The correct use rates by geographical area, specified on the label, and proper mixing/loading site considerations and application procedures must be followed to minimize potential for hexazinone movement into ground water. Users are encouraged to consult with their state Department of Agriculture, Extension Service, or other pesticide lead agency for information regarding soil permeability, aquifer vulnerability, and best management practices for their area.

MANDATORY SPRAY DRIFT REQUIREMENTS

Aerial Applications:

- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- If the wind speed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75 % or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Do not release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- 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 during temperature inversions.

Ground Boom Applications:

- Apply with the nozzle height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy. For all other ground applications, the nozzle must be no more than 4 feet from the target vegetation.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

Boom-less Ground Applications:

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES

Boom-less Ground Applications:

- Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

Handheld Technology Applications:

- Take precautions to minimize spray drift.

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NONTARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

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

Controlling Droplet Size: Ground Boom

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size: Aircraft

- Adjust Nozzles - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles 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.

PRODUCT INFORMATION

VELPAR® DF VU HERBICIDE is a water-dispersible granule that is mixed in water and applied as a spray for weed control in Christmas trees, forestry site preparation and release areas, and industrial areas. It may also be applied as a basal soil treatment for brush control in reforestation areas, rangeland, pastures, and noncrop areas.
VELPAR® DF VU HERBICIDE is an effective general herbicide providing both contact and residual control of many annual and biennial weeds and woody plants. It is also effective for control of most perennial weeds.
VELPAR® DF VU HERBICIDE is noncorrosive to equipment.
Care must be exercised when applying VELPAR® DF VU HERBICIDE near desirable trees or shrubs as they can absorb VELPAR® DF VU HERBICIDE through roots extending into treated areas.
This product may be applied on agricultural and non-agricultural sites that contain areas of temporary surface water caused by collection of water between planting beds, in equipment ruts, or in other depressions created by management activities. It is permissible to treat intermittent drainage, intermittently flooded low lying sites, seasonally dry flood plains, and transitional areas between upland and lowland sites when no water is present. It is also permissible to treat marshes, swamps, and bogs after water has receded, as well as seasonally dry flood deltas. DO NOT make applications to natural or man-made bodies of water such as lakes, reservoirs, ponds, streams, and canals.

ENVIRONMENTAL CONDITIONS AND BIOLOGICAL ACTIVITY

VELPAR® DF VU HERBICIDE is absorbed through the roots and foliage. Moisture is required to activate VELPAR® DF VU HERBICIDE in the soil. Best results are obtained when the soil is moist at the time of application and 1/4-1/2 inches of rainfall occurs within 2 weeks after application.
For best results, apply VELPAR® DF VU HERBICIDE preemergence or postemergence when weeds are less than 2 inches in height or diameter. Herbicidal activity is most effective under conditions of high temperature (above 80 °F), high humidity, and good soil moisture. Herbicidal activity may be reduced when vegetation is dormant, semi-dormant, or under stress (e.g. temperature or moisture).
Herbicidal activity will usually appear within 2 weeks after application to susceptible plants under warm, humid conditions; while 4-6 weeks may be required when weather is cool or dry, or when susceptible plants are under stress.If rainfall after application is inadequate to activate VELPAR® DF VU HERBICIDE in the soil, plants may recover from contact effects and continue to grow.
On woody plants, symptoms usually appear within 3-6 weeks after sufficient rainfall has carried the herbicide into the root zone during periods of active growth. Defoliation and subsequent refoliation may occur, but susceptible plants are killed.
The degree and duration of control will depend on the following:

- Use rate
- Weed spectrum and size at time of application
- Environmental conditions at and following treatment

Where a rate range is shown, use the higher levels of the dosage range on hard-to-control species, fine-textured soils, or soils containing greater than 5% organic matter or carbon. Use the lower levels of the dosage range on coarse-textured soils and/or on soils low in organic matter. Refer to specific uses for rate ranges.

APPLICATION INFORMATION

VELPAR® DF VU HERBICIDE may be applied by ground equipment and, where permitted, aerial equipment. Use rates, minimum spray gallonage, and other application information are described for various uses.
Dispose of the equipment washwater by applying it to a use-site listed on this label or in accordance with directions given in the "Storage and Disposal" section of this label.
Before spraying, calibrate equipment to determine the quantity of water necessary to uniformly and thoroughly cover the vegetation and soil in a measured area to be treated. Make sure the volume of water is sufficient to completely suspend the VELPAR® DF VU HERBICIDE.

TANK MIXTURES

VELPAR® DF VU HERBICIDE may be tank mixed with other herbicides and /or adjuvants registered for the uses specified in the label.
Refer to the label of the tank mix partner(s) for any additional use instructions or restrictions. The most restrictive label provisions apply. If other label instructions conflict with this label do not tank mix the herbicide and/or adjuvant with VELPAR® DF VU HERBICIDE.

INVASIVE SPECIES MANAGEMENT

This product may be considered for use on public, private, and tribal lands to treat certain weed species infestations that have been determined to be invasive, consistent with the Federal Interagency Committee for the Management of Noxious and Exotic Weeds (FICMNEW) National Early Detection and Rapid Response (EDRR) System for invasive plants. Effective EDRR systems address invasions by eradicating the invader where possible and controlling them when the invasive species is too established to be feasibly eradicated. Once an EDRR assessment has been completed and action is advised, a Rapid Response needs to be taken to quickly contain, deny reproduction, and if possible, eliminate the invader. Consult your appropriate state extension service, forest service, or regional multidisciplinary invasive species management coordination team to determine the appropriate Rapid Response provisions and allowed treatments in your area.

WEED RESISTANCE MANAGEMENT

VELPAR® DF VU HERBICIDE contains the active ingredient hexazinone which is a Group 5 Herbicide based on the mode of action classification system of the Weed Science Society of America. When herbicides that affect the same biological site of action are used repeatedly over several years to control the same weed species in the same field, naturally occurring resistant biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that field. Adequate control of these resistant weed biotypes cannot be expected.
Follow the best management practices listed below to delay the development of herbicide resistant weeds.

- Fields should be scouted prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective. Fields should be scouted after application to verify that the treatment was effective.
- Identify weeds present in the field through scouting and field history and understand their biology. The weed control program should consider all of the weeds present.
- Suspected herbicide-resistant weeds may be identified by these indicators:
  - Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds.
  - A spreading patch of non-controlled plants of a particular weed species; and
  - Surviving plants mixed with controlled individuals of the same species.
- Contact your local sales representative, crop advisor, or extension agent to find out if suspected resistant weeds to this MOA have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank mix products so that there are multiple effective mechanisms of actions for each target weed.
- Report any incidence of non-performance of this product against a particular weed species to your Environmental Science U.S., LLC distributor, Environmental Science U.S., LLC representative or call 1-800-331-2867.
- If resistance is suspected, treat weed escapes with an herbicide having a different mechanism of action and/or use nonchemical means to remove escapes, as practical, with the goal of preventing further seed production.
- Use a diversified approach toward weed management. Whenever possible incorporate multiple weed-control practices such as mechanical cultivation, biological management practices, and crop rotation.
- To the extent possible, do not allow weed escapes to produce seeds, roots, or tubers.
- Difficult to control weeds may require sequential applications of herbicides with differing mechanisms of action.
- Apply this herbicide at the correct timing and rate needed to control the most difficult weeds in the field.
- Use a broad-spectrum soil-applied herbicide with a mechanism of action that differs from this product as a foundation in a weed-control program.

DO NOT use more than two applications of this or any other herbicide with the same mechanism of action within a single growing season unless mixed with an herbicide with another mechanism of action with an overlapping spectrum for the difficult-to-control weeds.

INTEGRATED PEST MANAGEMENT

This product may be used as part of an Integrated Pest Management (IPM) program that can include biological, cultural, and genetic practices aimed at preventing economic pest damage. IPM principles and practices include field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants, or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

AGRICULTURAL USES

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 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.
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
- Chemical resistant gloves made of any waterproof material
- Shoes plus socks
- Protective eyewear

CHRISTMAS TREES

VELPAR® DF VU HERBICIDE is labeled for control of certain weeds where the following species are grown:

Fir, Douglas (western US only)	*Pseudotsuga menziesii*	Pine, loblolly	*Pinus taeda*
Fir, Fraser	*Abies fraseri*	Pine, ponderosa	*Pinus ponderosa*
Fir, grand	*Abies grandis*	Pine, Scotch	*Pinus sylvestris*
Fir, noble	*Abies procera*	Spruce, Sitka	*Picea sitchensis*
Pine, Austrian	*Pinus nigra*		

Unless otherwise directed in separately published ENVIRONMENTAL SCIENCE U.S., LLC instructions, do not use VELPAR® DF VU HERBICIDE on Christmas trees in the following states:

Alabama	Louisiana	New Jersey	Texas
Arkansas	Maine	New York	Vermont
Connecticut	Maryland	North Carolina	Virginia
Delaware	Massachusetts	Pennsylvania	West Virginia
Georgia	Mississippi	Rhode Island	
Florida	New Hampshire	South Carolina	

APPLICATION INFORMATION

EASTERN US

Apply VELPAR® DF VU HERBICIDE as a broadcast spray in the spring prior to budbreak. If application is made after budbreak, use directional spray equipment to prevent contact with foliage.

WESTERN US

Areas of greater than 20 inches annual rainfall - VELPAR® DF VU HERBICIDE may be applied as a broadcast spray in the spring prior to conifer budbreak. If application is made after budbreak, use directional spray equipment to prevent contact with foliage.
Areas of less than 20 inches annual rainfall - VELPAR® DF VU HERBICIDE may be applied in the fall before the soil freezes or in the spring after snow cover melts, but before conifer budbreak occurs.

USE RATES

The rates listed below are for broadcast application. For band application, use proportionately less; for example, use 1/2 of the broadcast rates when treating a 3-foot band where row spacing is 6 feet. Use the higher end of the rate range on the heavier soil type.
Do not use more than one application of VELPAR® DF VU HERBICIDE per year.

Soils	VELPAR® DF VU HERBICIDE (Pounds per Acre) First Year Plantings	Established Trees
Coarse Texture		
Loamy sand, sandy loam (50-85% sand)	1.33	1.33 – 1.66
Medium Texture		
Loam, silt loam, silt, clay loam, sandy clay loam	1.33 – 1.66	1.67 – 2.33
Fine Texture		
Silty clay loam, clay loam, sandy clay, silty clay, clay	1.66 – 2.0	2.33 – 2.66

First year plantings - Transplant stock must be 2 years old or older (1 year old for loblolly pine). Apply VELPAR® DF VU HERBICIDE only if rainfall has settled the soil around the base and root systems of the transplants. **Established trees** - Trees that have been planted in the plantation for 1 year or more.

WEEDS CONTROLLED

VELPAR® DF VU HERBICIDE is labeled for the control or suppression of the following weed species in Christmas tree crops:

Aster, heath*	*Aster ericoides*	Fescue*	*Festuca spp*
Barnyardgrass	*Echinochloa crus-galli*	Fleabane	*Conyza spp*
Bentgrass, common	*Agrostis alba*	Foxtail	*Setaria spp*
Bluegrass, annual	*Poa annua*	Goldenrod*	*Solidago spp*
Bromegrass	*Bromus spp*	Groundsel, common	*Senecio vulgaris*
Burnweed, American*	*Erechtites hieracifolius*	Horseweed/marestail	*Conyza canadensis*
Carrot, wild	*Daucus carota*	Orchardgrass*	*Dactylis glomerata*
Crabgrass*	*Digitaris spp*	Ragweed, common	*Ambrosia elatior*
Curly dock*	*Rumex crispus*	Ryegrass, Italian (annual)	*Lolium multiflorum*
Daisy, oxeye	*Chrysanthemum leucanthemum*	Ryegrass, perennial*	*Lolium perenne*
Dandelion, common*	*Taraxacum officinale*	Smartweed, Pennsylvania	*Polygonum pensylvanicum*
Dandelion, false* (spotted catsear)	*Hypochaeris radicata*	Velvetgrass, common	*Holcus lanatus*

* Suppression - a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.

SPRAY EQUIPMENT

VELPAR® DF VU HERBICIDE may be applied by ground equipment or by air.
Select a spray volume that will ensure a thorough and uniform application. Apply a minimum of 5 gallons per acre by air and a minimum of 10 gallons per acre by ground equipment.

USE RESTRICTIONS FOR CHRISTMAS TREES

- **DO NOT** use VELPAR® DF VU HERBICIDE in nurseries, seed beds, or ornamental plantings.
- **DO NOT** add a surfactant in applications over the top of conifers.
- **DO NOT** cut treated vegetation for feed, or graze livestock on treated areas for 60 days following application of VELPAR® DF VU HERBICIDE at broadcast rates exceeding 1.5 pounds (1.13 pounds hexazinone) per acre.
  - Livestock may be grazed immediately following a broadcast application of VELPAR® DF VU HERBICIDE at rates of 1.5 pounds (1.13 pounds hexazinone) per acre or less, and treated vegetation may be cut, dried, and fed after 38 days.
- **DO NOT** apply more than 2.66 pounds (2.0 pounds hexazinone) of VELPAR® DF UV HERBICIDE per acre in a 12-month period.
- **DO NOT** apply more than 2.66 pounds (2.0 pounds hexazinone) of VELPAR® DF VU HERBICIDE per acre in a single application.
- **DO NOT** make more than one application per year of VELPAR® DF VU HERBICIDE.

USE PRECAUTIONS FOR CHRISTMAS TREES

- Weed control results from spring applications depend on sufficient moisture to activate VELPAR® DF VU HERBICIDE.
- Poor weed and brush control may result from the following:
  - Heavy duff or slash present at the time of application.
  - Use on poorly drained sites.
  - Applications made when soil is saturated with water and rain is imminent within 24 hours.
  - Applications to soils high in organic matter (greater than 5%).
- Injury may occur when VELPAR® DF VU HERBICIDE is used on the following:
  - Trees that show poor vigor, insect damage, disease, winter injury, or other stress conditions.
  - Any soil containing less than 1% organic matter.
  - Loamy sand or sandy loam with less than 2% organic matter (except Jeffrey Pine and Ponderosa Pine).
  - Foliage after budbreak.
  - Gravelly or rocky soils, exposed subsoils, clay knobs, sand, or sandy soil with 85% or more sand.

FORESTRY

SITE PREPARATION

VELPAR® DF VU HERBICIDE is labeled for weed and brush control in areas where the following species are grown:

EASTERN US AND LAKE STATES

Fir, balsam	*Abies balsamea*	Pine, shortleaf	*Pinus echinata*
Pine, Austrian	*Pinus negra*	Pine, slash	*Pinus elliottii*
Pine, loblolly	*Pinus taeda*	Pine, Virginia	*Pinus virginiana*
Pine, longleaf	*Pinus palustris*	Spruce, black	*Picea mariana*
Pine, ponderosa	*Pinus ponderosa*	Spruce, red	*Picea rubens*
Pine, red	*Pinus resinosa*	Spruce, white	*Picea glauca*
Pine, Scotch	*Pinus sylvestris*		

WESTERN US

Fir, Douglas	*Pseudotsuga menziesii*	Pine, lodgepole	*Pinus contorta*
Fir, grand	*Abies grandis*	Pine, ponderosa	*Pinus ponderosa*
Fir, Noble	*Abies procera*	Spruce, blue	*Picea pungens*
Fir, white	*Abies concolor*	Spruce, Engleman	*Picea englemannii*
Pine, Jeffrey	*Pinus jeffreyi*	Spruce, Sitka	*Picea sitchensis*

APPLICATION INFORMATION

EASTERN US

Apply VELPAR® DF VU HERBICIDE from early spring to early summer after hardwoods have broken bud and before the foliage has hardened off.

Soils	VELPAR® DF VU HERBICIDE (Pounds per Acre) Eastern US
Coarse Texture	
Sand, loamy sand, sandy loam	2.66 - 4
Medium Texture	
Loam, silt loam, sandy clay loam	4 – 5.33
Fine Texture	
Silty clay loam, clay loam, sandy clay, silt, silty clay, clay	5.33 – 6.66

The rates listed are for broadcast application. Use the lower rates on coarse textured soils and soils low in organic matter. Use the higher rates on fine textured soils and soils high in organic matter. Use the higher rates where weeds identified with an* in the Weeds Controlled list predominate.

WESTERN US

For **SITE PREPARATION**, VELPAR® DF VU HERBICIDE may be applied at 1.3 to 4 pounds per acre. Use the lower rates on coarse textured soils and soils low in organic matter. Use the higher rates on fine textured soils and soils high in organic matter. Use the higher rates where weeds identified in this label as "suppression" predominate.
In areas where other conifer species may be mixed in with the conifers listed above, VELPAR® DF VU HERBICIDE may be applied if the user has prior experience with VELPAR® DF VU HERBICIDE on the other conifer species. With no prior experience, it is advised that either a small area of plantings be tested for conifer safety prior to treating larger areas or make no application of VELPAR® DF VU HERBICIDE in these areas within the site preparation area.
Conifer species that are sensitive to VELPAR® (hexazinone) DF VU HERBICIDE, such as, sugar pine and western larch, require 18 months before interplanting on treated sites. Applications made to shelter wood sites may also result in mortality to over-story conifers. Factors that may influence conifer sensitivity in these sites could include application rate, conifer species, soil characteristics, uniformity of spray distribution across the treatment swath, and environmental stress.
Rain Belt (areas of high spring rainfall): For best results, apply in late winter or spring when weeds and brush are actively growing.
Snow Belt (areas of low spring rainfall): For best results, apply in the fall before soil freezes, or in the spring after snow cover melts in anticipation of rainfall. Weed and brush control results from spring applications will be dependent on sufficient rainfall following application to activate VELPAR® DF VU HERBICIDE.

PLANTS CONTROLLED

VELPAR® DF VU HERBICIDE is labeled for the control or suppression of the following species in site preparations for forestry crops:

HERBACEOUS PLANTS

Asters			
Aster, heath*	*Aster ericoides*	Foxtail	*Setaria spp*
Barnyardgrass	*Echinochloa crus-galli*	Goldenrod*	*Solidago spp*
Bentgrass	*Agrostis spp*	Groundsel, common	*Senecio vulgaris*
Bluegrass, annual	*Poa annua*	Horseweed/marestail	*Conyza canadensis*
Bromegrass	*Bromus spp*	Mullein common**	*Verbascum thapsus*
Carrot, wild	*Daucus carota*	Orchardgrass*	*Dactylis glomerata*
Crabgrass*	*Digitaria spp*	Pinegrass	*Calamagrostis rubescens*
Daisy, oxeye	*Chrysanthemum leucanthemum*	Quackgrass*	*Agropyron repens*
Dandelion, common*	*Taraxacum officinale*	Ragweed, common	*Ambrosia elatior*
Dandelion, false*(spotted catsear)	*Hypochaeris radicata*	Ryegrass, Italian (annual)	*Lolium multiflorum*
Dock, curly*	*Rumex crispus*	Ryegrass, perennial*	*Lolium perenne*
Elksedge	*Carex geyeri*	Smartweed, Pennsylvania	*Polygonum pensylvanicum*
Fescue*	*Festuca spp*	Squawcarpet	*Ceanothus prostratus*
Fireweed*(willowweed)	*Epilobium angustifolium*	Thistle, Canada*	*Cirsium arvense*
Fleabane	*Conyza spp*	Velvetgrass, common	*Holcus lanatus*

** For western US site preparation, apply at 4 pounds per acre.

WOODY PLANTS

Ash	*Fraxinus spp*	Hickory	*Carya spp*
Aspen, big tooth	*Populus grandidentata*	Honeysuckle*	*Lonicera spp*
Aspen, trembling	*Populus tremuloides*	Manzanita, Greenleaf	*Arctostaphylos patula*
Birch	*Betula spp*	Maple, red*	*Acer rubrum*
Blackgum	*Nyssa sylvatica*	Oaks	*Quercus spp*
Cherry, black	*Prunus serotina*	Poplar, balsam	*Populus balsamifera*
Deerbrush	*Ceanothus integerrimus*	Snowbrush (varnishleaf)	*Ceanothus velutinus*
Dogwood, flowering*	*Comus florida*	Sourwood*	*Oxydendrum arboretum*
Elm	*Ulmus spp*	Sweetgum	*Liquidambar spp*
Hawthorn	*Crataegus spp*	Willows	*Salix spp*
Hazel	*Corylus spp*		

*Suppression is a visible reduction in plant competition (reduced population and/or vigor) as compared to an untreated area.

Degree of suppression will vary with rate applied, size of plants at application, and environmental conditions following treatment. Species indicated above, especially resprouts of these species, may require a follow up treatment for acceptable control.

Burning, as a follow up treatment, will enhance control of resprouts.

Within several weeks after VELPAR® DF VU HERBICIDE activation by rainfall, affected vegetation may be burned, if desired. This burn may further enhance control of vegetation. Burn the vegetation only after any residual stand is completely defoliated, at least twice, allowing for sufficient root uptake of VELPAR® DF VU HERBICIDE. In the West, results may take one to two years in areas of low rainfall.

SPRAY EQUIPMENT

When applied as a liquid spray using water as the carrier, VELPAR® DF VU HERBICIDE may be applied by ground equipment or by air (helicopter only).

For ground application, use enough water for thorough coverage, usually a minimum of 25 gallons per acre. For aerial applications, use at least 5 gallons of water per acre.

GRID APPLICATION

Mix 2.66 pounds of VELPAR® DF VU HERBICIDE with sufficient water to make one gallon of suspension and thoroughly agitate. Intermittent agitation may be required to maintain the VELPAR® DF VU HERBICIDE in suspension.

Apply the VELPAR® DF VU HERBICIDE suspension directly to the soil surface in a grid pattern using an exact delivery handgun applicator. This equipment delivers a thin stream of predetermined volume. VELPAR® DF VU HERBICIDE must be applied during the period from hardwood budbreak to early summer.

Application rate and grid pattern will depend on soil texture and woody plant composition. Use the lower rates on coarse textured soils and when the major component of the hardwoods are susceptible species. Use the high rates on fine-textured soils and where weeds identified in this label as "partial control or suppression" predominate.

Application Patterns and Rates For VELPAR® DF VU HERBICIDE Suspension

	Milliliter/Spot	Grid (Ft)	Pounds per Acre
Coarse	0.6	3X3	2
	2.0	4X4	4
	3.1	4X6	4
Medium/Fine	1.6	3X3	5.33
	2.8	4X4	5.33
	3.5	4X4	6.66
	5.2	4X6	6.66

BASAL (SOIL) SINGLE STEM TREATMENTS

Mix 2.66 pounds of VELPAR® DF VU HERBICIDE with sufficient water to make one gallon of suspension and thoroughly agitate. Apply the VELPAR® DF VU HERBICIDE suspension with an exact-delivery handgun applicator. This equipment delivers a thin stream of predetermined volume when triggered. Apply the VELPAR® DF VU HERBICIDE suspension at the rate of 2 to 4 ml for each inch of stem diameter at breast height. Direct the treatment to the soil within 3 feet of the root collar of woody plants to be controlled.

For multi-stemmed and low-growing brush that have stem diameters that are difficult to determine, apply the VELPAR® DF VU HERBICIDE suspension at the rate of 2 to 4 ml per 3 feet of canopy width. For tall, slender (columnar) brush types, apply 4 to 8 ml per 3 feet of height. Base the rate on whichever canopy dimension is greater (width or height). Apply the lower volumes for coarse textured soils or soils with low organic matter soils and the higher volumes for fine textured soils or soils with high organic matter.

When treating brush that requires more than a single delivery of the VELPAR® DF VU HERBICIDE suspension, apply subsequent deliveries equally spaced around the target plant. If treating brush on sloping sites, apply most of the suspension on the uphill side of the stem. If treating resprouts from brush disturbed by cutting or other mechanical methods, the rate of application must be proportional to the original tree size, not just the size of sprout regrowth.

USE RESTRICTIONS FOR SITE PREPARATION

- **DO NOT** apply more than 1.5 pounds of VELPAR® DF VU HERBICIDE per gallon (1.12 pounds hexazinone per gallon) when using mechanically pressurized handgun equipment. Does not apply to backpack sprayer applications.
- **DO NOT** apply more than 6.66 pounds (5.0 pounds hexazinone) of VELPAR® DF VU HERBICIDE per acre in a 12-month period.
- **DO NOT** apply more than 6.66 pounds (5.0 pounds hexazinone) of VELPAR® DF VU HERBICIDE per acre in a single application.
- **DO NOT** make more than one application per year of VELPAR® DF VU HERBICIDE.

USE PRECAUTIONS FOR SITE PREPARATION

- Where burning is desired, burn the vegetation only after any residual brush has completely defoliated, at least twice, allowing for sufficient root uptake of VELPAR® DF VU HERBICIDE.
- Following harvest, allow sufficient time for stumps and injured trees to adequately resprout before applying VELPAR® DF VU HERBICIDE.

FORESTRY- RELEASE

VELPAR® DF VU HERBICIDE is labeled for conifer release where the following species are grown:

EASTERN US AND LAKE STATES

Fir, balsam	*Abies balsamea*
Pine, loblolly	*Pinus taeda*
Pine, longleaf	*Pinus palustris*
Pine, red	*Pinus resinosa*
Pine, shortleaf	*Pinus echinata*
Pine, slash	*Pinus elliotti*
Pine, Virginia	*Pinus virginiana*
Spruce, black	*Picea mariana*
Spruce, Norway	*Picea abies*
Spruce, red	*Picea rubens*
Spruce, white	*Picea glauca*

WESTERN US

Fir, Douglas	*Pseudotsuga menziesii*
Fir, grand	*Abies grandis*
Fir, Noble	*Abies procera*
Fir, white	*Abies concolor*
Hemlock, Western	*Tsuga heterophylla*
Pine, Jeffrey	*Pinus jeffreyi*
Pine, lodgepole	*Pinus contorta*
Pine, ponderosa	*Pinus ponderosa*
Spruce, blue	*Picea pungens*
Spruce, Englemann	*Picea englemannii*
Spruce, Sitka	*Picea sitchensis*

APPLICATION INFORMATION

EASTERN US

Apply VELPAR® DF VU HERBICIDE from early spring to early summer after hardwoods have broken bud and before full leaf expansion.
Applications made over the top of pines may result in excessive pine injury under conditions of high humidity and temperature (80 degrees F).

WESTERN US

Rainbelt (areas of high spring rainfall): For best results, apply in late winter or spring when brush is actively growing, but prior to conifer budbreak. Dormant trees are less susceptible to injury. Applications where the spray comes into direct contact with conifers after dormancy break in the spring or before the final resting bud has hardened in the fall may severely injure or kill the trees.
Snowbelt (areas of low spring rainfall): For best results, apply in the fall before soil freezes and after the final resting bud has hardened on the conifers. Or, spring applications may be made after snow cover melts in anticipation of rainfall prior to conifer budbreak. Brush control results from spring treatments will be dependent on sufficient rainfall following application to activate VELPAR® DF VU HERBICIDE

USE RATES

The rates listed below are for broadcast application. Do not use more than one application of VELPAR® DF VU HERBICIDE per year. Use the higher rate range for the harder to control* (suppression) species in the PLANTS CONTROLLED listings of the Site Prep and Release sections.

EASTERN US

Crop Species	Soil Description	VELPAR® DF VU HERBICIDE (Pounds per Acre) Established Trees
Loblolly pine Longleaf pine	Loamy sand, sandy loam	1.33 – 2
Shortleaf pine Virginia pine	Loam, silt loam, silt, sandy clay loam	1.33 – 2.66
Slash pine	Silty clay loam, clay loam, sandy clay, silty clay, clay	3 – 4
Red pine	Loamy sand, sandy loam	1.33 – 2.66
	Loam, silt loam, silt, sandy clay loam	2.66 – 4
	Silty clay loam, clay loam, sandy clay, silty clay, clay	4 – 5.33

Established Trees

- 4 years of age from transplanting on coarse-textured soils
- 3 years of age from transplanting on medium-textured soils
- 2 years of age from transplanting for Red Pine

WESTERN US

Application rates by soil type for VELPAR® DF VU HERBICIDE in the following western conifers: Blue spruce, Douglas fir, Engleman spruce, Grand fir, Jeffrey pine, Lodgepole pine, Noble fir, Ponderosa pine, Sitka spruce, Western hemlock, and White fir.

VELPAR® DF VU HERBICIDE Soil Description	(Pounds per Acre)
Loamy sand, sandy loam	1.33 – 3
Loam, silt loam, sandy clay loam	2.66 – 4
Silt, silty clay loam, clay loam, sandy clay, silty clay, clay	3 – 4

For first year plantings utilizing bare root stock, treat only transplant stock that is 2 years old (2-0, 1-1) or more, except (1-0) for Ponderosa and Jeffrey pines. Apply VELPAR® DF VU HERBICIDE only if rainfall has settled the soil around the base and root systems of the transplants.

BRUSH CONTROLLED

VELPAR® DF VU HERBICIDE is labeled for the control or suppression of the following species in conifer release sites:

Ash	*Fraxinus spp*	Deerbrush	*Ceanothus integerrimus*	Oaks	*Quercus spp*
Aspen, big tooth	*Populus grandidentata*	Dogwood, flowering*	*Cornus florida*	Poplar, balsam	*Populus balsamifera*
Aspen, trembling	*Populus tremuloides*	Elm	*Ulmus spp*	Snowbrush	*Ceanothus velutinus*
Birch	*Betula spp*	Hawthorn	*Crataegus spp*	Sourwood*	*Oxydendrum arboretum*
Elder, box	*Acer negundo*	Hazel	*Corylus spp*	Sweetgum	*Liquidambar spp*
Brambles	*Rubus spp*	Honeysuckle*	*Lonicera spp*	Willows	*Salix spp*
Cherry, black	*Prunus serotina*	Manzanita, Greenleaf	*Arctostaphylos patula*		
Cherry, pin	*Prunus pensylvanica*	Maple, red*	*Acer rubrum*		

* Suppression- a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.
In addition to brush controlled, herbaceous species listed in the Weeds Controlled section of Release-Herbaceous Weed Control may be controlled with these applications.

SPRAY EQUIPMENT

When applied as a liquid spray using water as the carrier, VELPAR® DF VU HERBICIDE may be applied by ground equipment or by air (helicopter only).
For ground applications, use sufficient spray volume for thorough and uniform coverage of the site to be treated, usually a minimum of 25 gallons per acre. For aerial applications, use a minimum of 5 gallons per acre.

GRID APPLICATION

Mix 2.66 pounds of VELPAR® DF VU HERBICIDE with sufficient water to make one gallon of suspension and thoroughly agitate. Intermittent agitation may be required to maintain the VELPAR® DF VU HERBICIDE in suspension.
Apply the VELPAR® DF VU HERBICIDE suspension directly to the soil surface in a grid pattern using an exact delivery handgun applicator. This equipment delivers a thin stream of predetermined volume. VELPAR® DF VU HERBICIDE must be applied during the period from hardwood budbreak to early summer.
Application rate and grid pattern will depend on soil texture and woody plant composition. Use the lower rates on coarse textured soils and when the major component of the hardwoods are susceptible species. Use the high rates on fine-textured soils and where weeds identified in the label as "partial control or suppression" predominate.

Application Patterns and Rates For VELPAR® DF VU HERBICIDE Suspension

	Milliliter/Spot	Grid (Ft)	Pounds per Acre
Coarse	0.5	3X4	1.33*
	1.2	3X6	2
	2.1	4X6	2.66
Medium/Fine	1.2	3x3	4
	2.3	3X6	4
	1.6	3X3	5.33
	3.1	3X6	5.33

*Use on deep sands with pines four years or more of age.

BASAL (SOIL) SINGLE STEM TREATMENT

Mix 2.66 pounds of VELPAR® DF VU HERBICIDE with sufficient water to make one gallon of suspension and thoroughly agitate. Apply the VELPAR® DF VU HERBICIDE suspension with an exact-delivery handgun applicator. This equipment delivers a thin stream of predetermined volume when triggered. Apply the VELPAR® DF VU HERBICIDE suspension at the rate of 2 to 4 ml for each inch of stem diameter at breast height. Direct the treatment to the soil within 3 feet of the root collar of woody plants to be controlled.
For multi-stemmed and low-growing brush that have stem diameters that are difficult to determine, apply the VELPAR® DF VU HERBICIDE suspension at the rate of 2 to 4 ml per 3 feet of canopy width. For tall, slender (columnar) brush types, apply 4 to 8 ml per 3 feet of height. Base the rate on whichever canopy dimension is greater (width or height).
Apply the lower volumes for coarse textured soils or low organic matter soils and the higher volumes for fine textured soils or high organic matter soils.
When treating brush that requires more than a single delivery of the VELPAR® DF VU HERBICIDE suspension, apply subsequent deliveries equally spaced around the target plant. If treating brush on sloping sites, apply most of the suspension on the uphill side of the stem. If treating resprouts from brush disturbed by cutting or other mechanical methods, the rate of application must be proportional to the original tree size, not just the size of sprout regrowth.

USE RESTRICTIONS FOR SITE PREPARATION

- **DO NOT** apply more than 1.5 pounds of VELPAR® DF VU HERBICIDE per gallon (1.12 pounds hexazinone per gallon) when using mechanically pressurized handgun equipment. Does not apply to backpack sprayer applications.
- **DO NOT** apply more than 6.66 pounds (5.0 pounds hexazinone) of VELPAR® DF VU HERBICIDE per acre in a 12-month period.
- **DO NOT** apply more than 6.66 pounds (5.0 pounds hexazinone) of VELPAR® DF VU HERBICIDE per acre in a single application.
- **DO NOT** make more than one application per year of VELPAR® DF VU HERBICIDE.

USE PRECAUTIONS FOR RELEASE FOR GRID & SINGLE STEM

- Application of VELPAR® DF VU HERBICIDE basal soil spot treatments closer than 36 inches to conifer seedlings in their first season or directly up slope from these seedlings may result in injury or mortality.
- Use VELPAR® DF VU HERBICIDE on seedlings in their first or fourth year and older. Injury may result from use on two and three year old seedlings where root growth is extensive but hardiness is lacking.

RELEASE - HERBACEOUS WEED CONTROL

VELPAR® DF VU HERBICIDE is labeled for controlling herbaceous weeds where these pine species are grown:

EASTERN US

Loblolly pine	Longleaf pine	Slash pine	Red pine

WESTERN US

Blue spruce	Grand fir	Noble fir	Western hemlock
Douglas fir	Jeffrey pine	Ponderosa pine	White fir
Engleman spruce	Lodgepole pine	Sitka spruce	

APPLICATION INFORMATION

EASTERN US

Apply VELPAR® DF VU HERBICIDE as a broadcast or banded spray in the spring prior to conifer budbreak to lessen conifer injury potential.

WESTERN US

Rainbelt (areas of high spring rainfall): For best results, apply as a broadcast or banded spray in the late winter or spring when weeds are actively growing, but prior to conifer budbreak. If application is made after conifer budbreak, use directional spray equipment to prevent contact with conifer foliage, as injury may result.
Snowbelt (areas of low spring rainfall): For best results, apply as a broadcast or banded spray in the fall before soil freezes and after the final resting bud has hardened on the conifers. Or, spring applications may be made after snow cover melts in anticipation of rainfall prior to conifer budbreak. Weed control results from spring treatments will be dependent on sufficient rainfall following application to activate VELPAR® DF VU HERBICIDE.

USE RATES

The rates listed below are for broadcast application. For band application, use proportionately less. For example, use 1/2 of the broadcast rates when treating a 3-foot band where row spacing is 6 feet. Use the higher rate range for the harder to control (*Suppression) weeds listed in the table below.

EASTERN US

Soil Description	VELPAR® DF VU HERBICIDE (Pounds per Acre) First Year Plantings	Established Trees
Loamy sand, sandy loam (50-85% sand)	1.33	1.33 – 1.66
Loam, silt loam, silt, sandy clay loam	1.33 – 1.50	1.66 – 2.33
Silty clay loam, clay loam, sandy clay, silty clay, clay	1.50 – 1.80	2.33 – 2.66

Red pine only - Refer to labeled rates in the FORESTRY RELEASE -Use Rates Eastern US section of the label.

WESTERN US

Refer to labeled rates in the FORESTRY RELEASE- Use Rates Western US section of the label.

WEEDS CONTROLLED

VELPAR® DF VU HERBICIDE is labeled for the control or suppression of the following species in release sites:

Asters	*Aster spp*	Fleabane	*Erigeron spp.*
Aster, heath*	*Aster ericoides*	Foxtail	*Setaria spp*
Barnyardgrass	*Echinochloa crus-galli*	Goldenrod*	*Solidago spp*
Bentgrass	*Agrostis spp*	Groundsel, common	*Senecio vulgaris*
Bluegrass, annual	*Poa annua*	Horseweed/marestail	*Conyza canadensis*
Brackenfern	*Pteridium aquilinum*	Orchardgrass*	*Dactylis glomerata*
Bromegrass	*Bromus spp*	Panicums	*Panicum spp*
Carrot, wild	*Daucus carota*	Pinegrass	*Calamagrostis rubescens*
Crabgrass*	*Digitaria spp*	Ragweed, common	*Ambrosia artemisiifolia*
Daisy, oxeye	*Leucanthemum vulgare*	Ryegrass, Italian (annual)	*Lolium multiflorum*
Dandelion, common*	*Taraxacum officinale*	Ryegrass, perennial*	*Lolium perenne*
Dandelion, false (spotted catsear)*	*Hypochaeris radicata*	Smartweed, Pennsylvania	*Polygonum pensylvanicum*
Dock, curly*	*Rumex crispus*	Squawcarpet	*Ceanothus prostratus*
Fescue*	*Festuca spp*	Velvetgrass, common	*Holcus lanatus*
Fireweed*	*Chamerion angustifolium*		

* Suppression - a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.

USE RESTRICTIONS FOR FORESTRY - IMPREGNATED FERTILIZER

- Do not **DO NOT** impregnate potassium nitrate, sodium nitrate, or triple super phosphate fertilizers with VELPAR® DF VU as herbicidal action will be lost.

USE RESTRICTIONS FOR FORESTRY

- **DO NOT** use VELPAR® DF VU HERBICIDE in nurseries, seedbeds, or ornamental plantings.
- **DO NOT** use VELPAR® DF VU HERBICIDE on frozen soils.
- **DO NOT** add a surfactant in applications over the top of conifers.
- **DO NOT** cut treated vegetation for feed or graze livestock on treated areas for 60 days following application of VELPAR® DF VU HERBICIDE at broadcast rates exceeding 1.5 pounds per acre.
  - Livestock may be grazed immediately following a broadcast application of VELPAR® DF VU HERBICIDE at rates of 1.5 pounds per acre or less, and treated vegetation may be cut, dried, and fed after 38 days.
- **DO NOT** apply more than 1.5 pounds of VELPAR® DF VU HERBICIDE per gallon (1.12 pounds hexazinone per gallon) when using mechanically pressurized handgun equipment. Does not apply to backpack sprayer applications.
- For all forestry uses, application by fixed-wing aircraft is prohibited

USE PRECAUTIONS FOR FORESTRY

- On tracts of land where various soil types are present and VELPAR® DF VU HERBICIDE rate selection is difficult, conifer damage or less-than-expected vegetation suppression may occur due to the different rates required for various soil types.
- Poor weed and brush control may result from the following:
  - Heavy duff or slash present at time of application
  - Use on poorly drained sites
  - Applications made when the soil is saturated with water and rain is imminent within 24 hours
  - Applications to soils high in organic matter (greater than 5%)
- Following harvest, allow stumps and injured trees sufficient time to adequately resprout before applying VELPAR® DF VU HERBICIDE.
- Where burning is desired, burn vegetation after any brush has completely defoliated, at least twice, allowing for sufficient root uptake of VELPAR® DF VU HERBICIDE.
- Weed control results from spring applications depend on sufficient moisture to activate VELPAR® DF VU HERBICIDE.
- When applying VELPAR® DF VU HERBICIDE after transplanting, wait until rainfall has settled the soil around the base and root systems of the transplants before making the treatment.
- Crop injury may occur when VELPAR® DF VU HERBICIDE is used:
  - On trees that show poor vigor, insect damage, disease, winter injury, or other stress conditions
  - On any soil containing less than 1% organic matter
  - On loamy sand or sandy loam with less than 2% organic matter, except Jeffrey pine and Ponderosa pine
  - On conifer foliage after conifer budbreak
  - On gravelly or rocky soils, exposed subsoils, clay knobs, sand, or sandy soil with 85% or more sand.

PASTURE/RANGELAND

VELPAR® DF VU HERBICIDE is labeled for control of brush and weeds in pasture.

BERMUDAGRASS/BAHIAGRASS

VELPAR® DF VU HERBICIDE is labeled for control of smutgrass and other weeds in established stands of bermudagrass and bahiagrass.

APPLICATION INFORMATION

Make a single application of VELPAR® DF VU HERBICIDE per year when weeds are actively growing.

WEEDS CONTROLLED -USE RATES

VELPAR® DF VU HERBICIDE effectively controls the following weeds at the rates shown in pastures. Use a lower rate on coarse-textured soils (sand to sandy loam). Use the higher rate on fine-textured soils (clay loam to clay) and on soils high in organic matter.

0.9 - 1.5 pounds/acre

Barley, little	*Hordeum pusillum*
Barnyardgrass	*Echinochloa crus-galli*
Dogfennel	*Eupatorium capillifolium*
Fescue	*Festuca spp*
Lespedeza	*Lespedeza cuneata*
Oxalis	*Oxalis spp*
Passionflower, maypop	*Passiflora incarnata*
Pepperweed, Virginia	*Lepidium virginicum*
Pigweed	*Amaranthus spp*
Smutgrass*	*Sporobolus indicus*

* Suppression may result with some of the giant (larger) smutgrass species.
Suppression- a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.

SPRAY EQUIPMENT

Apply VELPAR® DF VU HERBICIDE uniformly over the desired area using ground equipment only.
For ground application, use enough water for thorough coverage usually a minimum of 25 gallons per acre. The use of a surfactant may increase the potential for bermudagrass or bahiagrass injury.

USE RESTRICTIONS FOR BERMUDAGRASS/BAHIAGRASS

- Use VELPAR® DF VU HERBICIDE only in stands of bermudagrass and bahiagrass established for at least one year. DO NOT treat newly sprigged or sodded areas.
- DO NOT apply VELPAR® DF VU HERBICIDE broadcast at rates greater than 1.5 pounds (1.13 pounds hexazinone) per acre in a single application. Livestock may be grazed immediately following a broadcast application of VELPAR® DF VU HERBICIDE at rates of 1.5 pounds (1.13 pounds hexazinone) per acre or less, and treated vegetation may be cut, dried, and fed after 38 days. For applications from 1.5 to 8 pounds (1.13 to 6 pounds hexazinone) VELPAR® DF VU HERBICIDE per acre on non-crop sites where cattle have access, DO NOT cut treated vegetation for feed, or graze livestock on treated areas for 60 days following application.
- VELPAR® DF VU HERBICIDE rates above 8 pounds (6 pounds hexazinone) per acre, DO NOT cut treated vegetation for forage or hay nor graze domestic animals for 1 year following application.
- DO NOT make more than 1 application of VELPAR® DF VU HERBICIDE per year when used as a broadcast application.

USE PRECAUTIONS FOR BERMUDAGRASS/BAHIAGRASS

- For bermudagrass that may be grown in the states of ID, OR, UT or WA, determine the suitability of using VELPAR® DF VU HERBICIDE by treating a small area at a labeled application rate prior to treating larger areas. The smaller treated area must be observed for any signs of herbicidal injury during 60 days of normal growing conditions to determine if the treatment is safe to bermudagrass. If this evaluation is not completed prior to use, the user assumes the responsibility for any plant damage or other liability resulting from the use of VELPAR® DF VU HERBICIDE on bermudagrass.
- Some temporary discoloration of the bermudagrass or bahiagrass may occur after application.
- Treatment of mixed pastures containing forage species other than bermudagrass or bahiagrass may result in injury or mortality to the other forage species.
- Injury may result when desirable grasses are under stress from drought, insects, disease, cold temperature, or poor fertility.
- Injury to or loss of desirable trees or other plants may result if VELPAR® DF VU HERBICIDE is applied or if equipment is drained or flushed on or near desirable trees or other plants, on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- Severe crop injury may occur if applications are made on gravelly or rocky soils, thinly covered subsoils, or soils with less than 1% organic matter.

PASTURE/RANGELAND BRUSH CONTROL

VELPAR® DF VU HERBICIDE may be used either broadcast or as a basal-soil treatment for the control of undesirable brush in pasture or rangeland.

APPLICATION INFORMATION

Apply VELPAR® DF VU HERBICIDE from late winter through summer, pre-budbreak until new growth hardens off.
In areas where the soil remains frozen during the winter and spring rains are usually inadequate for soil activation, a fall or winter treatment may be applied before the soil freezes.
For broadcast use rates needed to control the species below, see the **Forestry - Release, Use Rates** section.

BRUSH CONTROLLED

VELPAR® DF VU HERBICIDE is labeled for the control or suppression of the following brush species in pasture and rangeland:

Alder	*Alnus spp*	Huisache	*Acacia farnesiana*	Poplar, yellow	*Liriodendron tulipifera*
Ash	*Fraxinus spp*	Juniper	*Juniperus spp*	Privit	*Ligustrum spp*
Aspen	*Populus spp*	Locust	*Robinia spp*	Rose, multiflora	*Rosa multiflora*
Birch	*Betula spp*	Lotebush	*Ziziphus obtusifolia*	Sassafras*	*Sassafras albidum*
Blackgum	*Nyssa sylvatica*	Manzanita, Greenleaf	*Arctostaphylos patula*	Soapweed, small (yucca)	*Yucca glauca*
Bay, sweet	*Magnolia virginiana*	Maple, red	*Acer rubrum*	Snowbrush	*Ceanothus velutinus*
Catclaw acacia	*Senegalia greggii*	Mesquite	*Prosopis glandulosa*	Sourwood	*Oxydendrum arboreum*
Cedar, Eastern red	*Juniperus virginiana*	Mulberry	*Morus spp*	Sumac	*Rhus spp*
Cherry, black	*Prunus serotina*	Oaks	*Quercus spp*	Sweetgum	*Liquidambar spp*
Chinaberry*	*Melia azedarach*	Osage-orange	*Maclura pomifera*	Tallow, Chinese	*Sapium sebiferum*
Deerbrush	*Ceanothus integerrimus*	Persimmon	*Diospyros spp*	Waxmyrtle	*Myrica cerifera*
Dogwood, flowering*	*Cornus florida*	Plum, wild	*Prunus americana*	Whitebrush	*Aloysia gratissima*
Elm, American	*Ulmus Americana*	Poplar, balsam	*Populus balsamifera*	Willow	*Salix spp*
Elm, Chinese	*Ulmus parvifolia*				
Hackberry, common	*Celtis occidentalis*				
Hawthorn	*Crataegus spp*				
Hazel	Corylus spp				
Hickory	*Carya spp*				

*Suppression- a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.

SPRAY EQUIPMENT AND APPLICATION TECHNIQUES

Basal (Soil)-Mix 2.66 pounds of VELPAR® DF VU HERBICIDE with sufficient water to make one gallon of suspension and thoroughly agitate. Apply the VELPAR® DF VU HERBICIDE suspension with an exact-delivery handgun applicator. This equipment delivers a thin stream of predetermined volume when triggered. Apply the VELPAR® DF VU HERBICIDE suspension at the rate of 2 to 4 ml for each inch of stem diameter at breast height. Direct the treatment to soil within 3 inches of the root collar of woody plants to be controlled. When treating large stems and when more than one delivery of the VELPAR® DF VU HERBICIDE suspension is needed per stem, make applications on opposite sides of the stem. Do not apply more than 1/3 gallon of the VELPAR® DF VU HERBICIDE suspension per acre per year. Intermittent agitation may be required to maintain the VELPAR® DF VU HERBICIDE in suspension.

USE RESTRICTIONS FOR PASTURE/RANGELAND

- **DO NOT** use VELPAR® DF VU HERBICIDE on frozen soils.
- When VELPAR® DF VU HERBICIDE is applied as a basal soil treatment, there is no restriction on grazing by domestic animals nor on cutting surrounding vegetation for forage or hay.
- When used as a basal (soil) application, DO NOT apply VELPAR® DF VU HERBICIDE at rates greater than 0.9 pounds (0.68 pounds hexazinone) per acre in a single application. When VELPAR® DF VU HERBICIDE is applied as a basal (soil) treatment, there is no restriction on grazing by domestic animals nor on cutting surrounding vegetation for forage or hay.
- When VELPAR® DF VU HERBICIDE is broadcast-applied at rates up to 1.5 pounds (1.13 pounds hexazinone) per acre, livestock may be grazed immediately following treatment and treated vegetation may be cut, dried, and fed after 38 days. For applications from 1.5 to 5.33 pints of Veplar® DF VU Herbicide (1.13 to 4 pounds hexazinone) per acre on non-crop sites where cattle have access, **DO NOT** cut treated vegetation for feed, or graze livestock on treated areas for 60 days following application.
- **DO NOT** make more than 1 application of VELPAR® DF VU HERBICIDE per year when used as a basal (soil) or broadcast applications.

USE PRECAUTIONS FOR PASTURE/RANGELAND

- Injury to or loss of desirable trees or other plants may result if VELPAR® DF VU HERBICIDE is applied or if equipment is drained or flushed on or near desirable trees or other plants, on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- Poor weed and brush control may result from the following:
  - Use on poorly drained sites
  - Applications made when the soil is saturated with water and rain is imminent within 24 hours
  - Applications to soils high in organic matter (greater than 5%)
- Following mechanical cutting or clearing, allow stumps and injured trees sufficient time to adequately resprout before applying VELPAR® DF VU HERBICIDE.
- Leave treated soil undisturbed to reduce the potential for VELPAR® DF VU HERBICIDE movement by soil erosion due to wind or water.
- Weed and brush control results depend on sufficient moisture to activate VELPAR® DF VU HERBICIDE.

NON-AGRICULTURAL USES

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.
Use on non-crop sites including industrial turf grasses are not within the scope of the Worker Protection Standard. When applied as a spray do not enter or allow worker entry into treated areas until sprays have dried.

Respirator fit testing, medical qualification, and training

Using a program that conforms to OSHA 's requirements (see 29 CFR Part 1910. 134), employers must verify that any handler who uses a respirator is:

- Fit-tested and fit-checked,
- Trained, and
- Examined by a qualified medical practitioner to ensure physical ability to safely wear the style of respirator to be worn. A qualified medical practitioner is a physician or other licensed health care professional who will evaluate the ability of a worker to wear a respirator. The initial evaluation consists of a questionnaire that asks about medical conditions (such as a heart condition) that would be problematic for respirator use. If concerns are identified, then additional evaluations, such as a physical exam, might be necessary. The initial evaluation must be done before respirator use begins. Handlers must be reexamined by a qualified medical practitioner if their health status or respirator style or use-conditions change.

Upon request by local/state/federal/tribal enforcement personnel, employers must provide documentation demonstrating how they have complied with these requirements.
VELPAR® DF VU HERBICIDE is labeled for general weed and brush control as follows: uncultivated nonagricultural areas (such as, airports, highway, railroad and utility right-of way, sewage disposal areas); uncultivated agricultural areas (non-crop producing, which includes: farmyards, fuel storage areas, fence rows, barrier strips); industrial sites (outdoor, such as, lumberyards, pipeline and tank farms).

NON-CROP SITES

VELPAR® DF VU HERBICIDE is labeled for control of many annual, biennial, and perennial weeds in non-crop sites.

APPLICATION INFORMATION

Apply VELPAR® DF VU HERBICIDE as a preemergence or postemergence spray when weeds are actively germinating or growing.

WEEDS CONTROLLED - USE RATE

VELPAR® DF VU HERBICIDE effectively controls the following weeds when applied at the use rates shown in industrial sites. When applied at lower rates, VELPAR® DF VU HERBICIDE provides short-term control of the weeds listed; when applied at higher rates, weed control is increased and extended.
Use lower rate on coarse-textured soils (sand to sandy loam). Use the higher rate on fine-textured soils (clay loam to clay) and on soils high in organic matter.

2.66 - 6.66 pounds/acre

Barnyardgrass	*Echinochloa crus- galli*	Lespedeza	*Lespedeza cuneata*
Bindweed, field*	*Convolvulus arvensis*	Milkweed, common*	*Asclepias syriaca*
Bouncingbet*	*Saponaria officinalis*	Mustard, wild	*Sinapis arvensis*
Bromegrass	*Bromus spp*	Nutsedge*	*Cyperus spp*
Buffalograss*	*Bouteloua dactyloides*	Oats, wild*	*Avena fatua*
Burdock	*Arctium spp*	Orchardgrass *	*Dactylis glomerata*
Cocklebur	*Xanthium spp*	Orchardgrass (seedling)	*Dactylis glomerata*
Crabgrass	*Digitaria spp*	Oxalis	*Oxalis spp*
Crown vetch	*Securigera varia*	Paragrass	*Urochloa mutica*
Curly dock*	*Rumex crispus*	Parsnip, wild	*Pastinaca sativa*
Dandelion, common*	*Taraxacum officinale*	Pigweed	*Amaranthus spp*
Dandelion, false (spotted catsear)*	*Hypochaeris radicata*	Purslane, common	*Portulaca oleracea*
Dogbane*	*Apocynum cannabinum*	Quackgrass	*Agropyron repens*
Fiddleneck, tarweed	*Amsinckia lycopsoides*	Ryegrass, Italian (annual)	*Lolium multiflorum*
Filaree	*Erodium spp*	Smartweed	*Polygonum spp*
Fleabane, flax-leaved	*Conyza bonariensis*	Spurge	*Euphorbia spp*
Goatsbeard	*Aruncus dioicus*	Star thistle	*Centaurea spp*
Goldenrod	*Solidago spp*	Trumpetcreeper*	*Campsis radicans*
Horseweed/marestail	*Conyza canadensis*		

8 - 10.66 pounds/acre

Aster, heath	*Aster ericoides*	Fingergrass	*Digitaria ciliaris*
Bahiagrass*	*Paspalum notatum*	Foxtail	*Setaria spp*
Bermudagrass*	*Cynodon dactylon*	Guineagrass	*Panicum maximum*
Blackberry	*Rubus spp*	Honeysuckle	*Lonicera spp*
Bluegrass	*Poa spp*	Horseweed/marestail	*Conyza canadensis*
Broomsedge	*Andropogon virginicus*	Lantana	*Lantana camara*
Camphorweed	*Heterotheca subaxillaris*	Lettuce, prickly	*Lactuca serriola*
Canada thistle*	*Cirsium arvense*	Natalgrass (red top)	*Melinis repens*
Carrot, wild	*Daucus carota*	Plantain	*Plantago spp*
Chickweed, common	*Stellaria media*	Ragweed, common	*Ambrosia artemisiifolia*
Clovers	*Trifolium spp*	Smutgrass**	*Sporobolus indicus*
Dewberry	*Rubus trivialis*	Spanishneedles	*Bidens bipinnata*
Dogfennel	*Eupatorium capillifolium*	Vaseygrass	*Paspalum urvillei*
Fescue*	*Festuca spp*		

* Suppression- a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.
** Suppression may result with some of the giant (larger) smutgrass species.

SPECIFIC WEED PROBLEMS

Control of Canada Thistle in Crown Vetch - VELPAR® DF VU HERBICIDE is labeled for control of Canada thistle in established stands of crown vetch on noncrop sites. Make a single application of 1 to 1.66 lbs of VELPAR® DF VU HERBICIDE from late spring through mid-summer, when thistle is actively growing prior to flowering. Do not use a surfactant. Some discoloration of the crown vetch foliage may occur after application

SPRAY EQUIPMENT

Apply VELPAR® DF VU HERBICIDE uniformly over the desired area using ground equipment or helicopter. Do not apply more than 8 lbs per acre by air.
Use enough water for thorough coverage. For ground application this is usually a minimum of 25 gallons per acre. Higher application volumes may be needed to obtain uniform application with handgun equipment. For aerial applications (helicopter only) this is usually a minimum of 5 gallons per acre. Higher volumes of water may be needed when water temperatures are cold or the higher rates of VELPAR® DF VU HERBICIDE are used.

NON-CROP BRUSH CONTROL

VELPAR® DF VU HERBICIDE is labeled for the control of undesirable brush in non-crop sites.

APPLICATION INFORMATION

Apply VELPAR® DF VU HERBICIDE from late winter through summer, prebudbreak until new growth hardens off.
In areas where the soil remains frozen during the winter and spring rains are usually inadequate for soil activation, a fall or winter treatment may be applied before the soil freezes.

BROADCAST

Apply 5.33 to 10.66 lbs of VELPAR® DF VU HERBICIDE per acre as a coarse spray by ground equipment or 5.33 to 8 lbs per acre by air (helicopter only). Use enough water for thorough coverage. For ground equipment, usually a minimum of 25 gallons per acre. For aerial equipment, usually a minimum of 10 gallons per acre. Higher volumes of water may be needed when water temperatures are cold or the higher rates of VELPAR® DF VU HERBICIDE are used

BASAL (SOIL) SINGLE STEM TREATMENT

Mix 2.66 pounds of VELPAR® DF VU HERBICIDE with sufficient water to make one gallon of suspension and thoroughly agitate. Apply the VELPAR® DF VU HERBICIDE suspension with an exact-delivery handgun applicator. This equipment delivers a thin stream of predetermined volume when triggered. Apply the VELPAR® DF VU HERBICIDE suspension at the rate of 2 to 4 ml for each inch of stem diameter at breast height.
Direct the treatment to the soil within 3 feet of the root collar of woody plants to be controlled.
For multi-stemmed and low-growing brush that have stem diameters that are difficult to determine, apply the VELPAR® DF VU HERBICIDE suspension at the rate of 2 to 4 ml per 3 feet of canopy width. For tall, slender (columnar) brush types, apply 4 to 8 ml per 3 feet of height. Base the rate on whichever canopy dimension is greater (width or height).
When treating brush that requires more than a single delivery of the VELPAR® DF VU HERBICIDE suspension, apply subsequent deliveries equally spaced around the target plant. If treating brush on sloping sites, apply most of the suspension on the uphill side of the stem. If treating resprouts from brush disturbed by cutting or other mechanical methods, the rate of application must be proportional to the original tree size, not just the size of sprout regrowth.
LACING/STREAKING- Mix VELPAR® DF VU HERBICIDE with water to form a concentrated suspension. Apply 5.33 to 10.66 lbs of VELPAR® DF VU HERBICIDE per acre. Adjust the application equipment to deliver a narrow or straight stream spray pattern such that the swath width on the soil surface is 6 to 12 inches wide. Direct the spray at the base of the brush. Swaths or treated bands must be 2 to 4 feet apart. Apply the lower volumes for coarse textured soils or soils with low organic matter and the higher volumes for fine textured soils or soils with high organic matter.

USE RATES

VELPAR® DF VU HERBICIDE is labeled for the control or suppression of the following species in non-crop sites. Use lower rate on coarse-textured soils (sand to sandy loam). Use the higher rate on fine-textured soils(clay loam to clay) and on soils high in organic matter.

5.33 - 10.66 pounds/acre

Alder	*Alnus spp*	Hawthorn	*Crataegus spp*	Poplar, balsam	*Populus balsamifera*
Ash	*Fraxinus spp*	Hazel	*Corylus spp*	Poplar, yellow	*Liriodendron tulipifera*
Aspen	*Populus spp*	Hickory	*Carya spp*	Privit	*Ligustrum spp*
Birch	*Betula spp*	Huisache	*Acacia farnesiana*	Rose, multiflora	*Rosa multiflora*
Blackgum	*Nyssa sylvatica*	Juniper	*Juniperus spp*	Sassafras*	*Sassafras albidum*
Bay, sweet	*Magnolia virginiana*	Locust	*Robinia spp*	Soapweed, small (yucca)	*Yucca glauca*
Catclaw acacia	*Senegalia greggii*	Lotebush	*Ziziphus obtusifolia*	Snowbrush	*Ceanothus velutinus*
Cedar, Eastern red	*Juniperus virginiana*	Manzanita, Greenleaf	*Arctostaphylos patula*	Sourwood	*Oxydendrum arboreum*
Cherry, black	*Prunus serotina*	Maple, red	*Acer rubrum*	Sumac	*Rhus spp*
Chinaberry*	*Melia azedarach*	Mesquite	*Prosopis glandulosa*	Sweetgum	*Liquidambar spp*
Deerbrush	*Ceanothus integerrimus*	Mulberry	*Morus spp*	Tallow, Chinese	*Sapium sebiferum*
Dogwood, flowering*	*Cornus florida*	Oaks	*Quercus spp*	Waxmyrtle	*Myrica cerifera*
Elm, American	*Ulmus Americana*	Osage-orange	*Maclura pomifera*	Whitebrush	*Aloysia gratissima*
Elm, Chinese	*Ulmus parvifolia*	Persimmon	*Diospyros spp*	Willow	*Salix spp*
Hackberry, common	*Celtis occidentalis*	Plum, wild	*Prunus americana*		

*Suppression- a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.

INDUSTRIAL TURFGRASS
VELPAR® DF VU HERBICIDE is labeled for selective weed control in established stands of bermudagrass and/or bahiagrass in noncrop areas.

APPLICATION TIMING
Make a single application of VELPAR® DF VU HERBICIDE per year when weeds are actively growing.

WEEDS CONTROLLED - USE RATE
VELPAR® DF VU HERBICIDE effectively controls the following weeds at the rates shown in industrial turf (unimproved only). Use a lower rate on coarse-textured soils (sand to sandy loam). Use the higher rate on fine- textured soils (clay loam to clay) and on soils high in organic matter.

0.9 - 1.5 pounds/acre

Barley, little	*Hordeum pusillum*	Oxalis	*Oxalis spp*
Barnyardgrass	*Echinochloa crus-galli*	Passionflower, maypop	*Passiflora incarnata*
Dogfennel	*Eupatorium capillifolium*	Pepperweed, Virginia	*Lepidium virginicum*
Fescue	*Festuca spp*	Pigweed	*Amaranthus spp*
Lespedeza	*Lespedeza cuneata*	Smutgrass*	*Sporobolus indicus*

*Suppression may result with some of the giant (larger) smutgrass species.
Suppression- a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.

SPRAY EQUIPMENT
Apply VELPAR® DF VU HERBICIDE uniformly over the desired area using ground equipment only.
For ground application, use enough water for thorough coverage usually a minimum of 25 gallons per acre. The use of a surfactant is not advised.

USE PRECAUTIONS FOR ALL NON-CROP SITES
- For bermudagrass that may be grown in the states of ID, OR, UT or WA, determine the suitability of using VELPAR® DF VU HERBICIDE by treating a small area at a labeled application rate prior to treating larger areas. The smaller treated area must be observed for any signs of herbicidal injury during 60 days of normal growing conditions to determine if the treatment is safe to bermudagrass. If this evaluation is not completed prior to use, the user assumes the responsibility for any plant damage or other liability resulting from the use of VELPAR® DF VU HERBICIDE on bermudagrass.
- Injury to or loss of desirable trees or other plants may result if VELPAR® DF VU HERBICIDE is applied or if equipment is drained or flushed on or near desirable trees or other plants, on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- Application spray drift may injure desirable plants.
- Poor weed and brush control may result from the following:
  - Use on poorly drained sites
  - Applications made when the soil is saturated with water and rain is imminent within 24 hours.
  - Applications to soils high in organic matter (greater than 5%).
- Following mechanical cutting or clearing, allow stumps and injured trees sufficient time to adequately resprout before applying VELPAR® DF VU HERBICIDE.
- Leave treated soil undisturbed to reduce the potential for VELPAR® DF VU HERBICIDE movement by soil erosion due to wind or water.
- Some discoloration of the bermudagrass or bahiagrass turfgrasses may occur after application.
- Injury may result when desirable turfgrasses are under stress from drought, insects, disease, cold temperature, or poor fertility.
- Severe turfgrass injury may occur if applications are made on gravelly or rocky soils, thinly covered subsoils, or soils with less than 1% organic matter.
- For VELPAR® DF VU HERBICIDE rates above 8 pounds per acre, do not cut treated vegetation for forage or hay nor graze domestic animals for 1 year following application.

USE RESTRICTIONS FOR ALL NON-CROP SITES
- Apply by ground equipment only.
- **DO NOT** use VELPAR® DF VU HERBICIDE on frozen soils.
- **DO NOT** use VELPAR® DF VU HERBICIDE on lawns, driveways, tennis courts, or other residential or recreational areas.
- Weed and brush control results from spring applications depend on sufficient moisture to activate VELPAR® DF VU HERBICIDE.
- There are no grazing or haying restrictions for the directed basal-soil applications of VELPAR® DF VU HERBICIDE.
- Use VELPAR® DF VU HERBICIDE only in stands of bermudagrass and bahiagrass turfgrasses established for at least one year. **DO NOT** treat newly sprigged or sodded areas.
- **DO NOT** apply more than 10.66 pounds (8.0 pounds hexazinone) of VELPAR® DF VU HERBICIDE per acre in a 12-month period.
- **DO NOT** apply more than 10.66 pounds (8.0 pounds ai/acre hexazinone) of VELPAR® DF VU HERBICIDE per acre in a single application.
- **DO NOT** make more than three application per year of VELPAR® DF VU HERBICIDE on non-crop sites when using reduced application rates. Allow at least 30 days between applications.
- When making more than one application per year the following grazing / haying restrictions apply:
  - At rate totals of 1.5 pounds (1.13 pounds hexazinone) per acre of VELPAR® DF VU HERBICIDE or less livestock may be grazed immediately following a broadcast application of VELPAR® DF VU HERBICIDE and treated vegetation may be cut, dried, and fed after 38 days.
  - At rate totals of 1.5 to 8 pounds (1.13 to 6 pounds hexazinone) per acre of VELPAR® DF VU HERBICIDE **DO NOT** cut treated vegetation for feed, or graze livestock on treated areas for 60 days following application.
  - At rate totals greater than 8 pounds (6 pounds hexazinone) per acre VELPAR® DF VU HERBICIDE **DO NOT** cut treated vegetation for feed, or graze livestock on treated areas for 1 year following application.

ADDITIONAL INSTRUCTIONS, PRECAUTIONS, AND RESTRICTIONS FOR AGRICULTURAL AND NON-AGRICULTURAL USES

SPRAY TANK CLEAN OUT
Thoroughly clean all traces of VELPAR® DF VU HERBICIDE from application equipment immediately after use. Flush the tank, pump, hoses, and boom with several changes of water after removing nozzle tips and screens (clean these parts separately). Dispose of the equipment wash water by applying it to a use-site listed on this label.

DRIFT CONTROL ADDITIVES
Using product compatible drift control additives can reduce drift potential. When a drift control additive is used, read and carefully observe cautionary statements and all other information on the additive's label. If using an additive that increases viscosity, ensure that the nozzles and other application equipment will function properly with a viscous spray solution. Preferred drift control additives have been certified by the Chemical Producers and Distributors Association (CPDA).

STORAGE AND DISPOSAL

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

Pesticide Storage: Store product in original container only. Store in a cool, dry place.

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

CONTAINER HANDLING: Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable Container" or "Refillable Container" designation.

Nonrefillable Plastic and Metal Containers (Capacity Equal to or Less Than 50 Pounds): Nonrefillable container. Do not reuse or refill this container. Triple 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 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. Then, (a) for Plastic Containers, 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, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Plastic and Metal Containers (Capacity Greater Than 50 Pounds): Nonrefillable container. Do not reuse or refill this container. Triple 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. Then, (a) for Plastic Containers, 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, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Plastic and Metal Containers, e.g., Intermediate Bulk Containers [IBC] (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down): Nonrefillable container. Do not reuse or refill this container. Pressure rinse as follows: Empty the remaining product contents into application equipment or a mix tank. Insert pressure rinsing nozzle in the container, and rinse at about 40 PSI for at least 30 seconds. Drain rinsate for 10 seconds after the flow begins to drip. Pour or pump rinsate into application equipment or rinsate collection system. Then, (a) for Plastic Containers, 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, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Paper or Plastic Bags, Fiber Sacks including Flexible Intermediate Bulk Containers (FIBC) or Fiber Drums With Liners: Nonrefillable container. Do not reuse or refill this container. Completely empty paper or plastic bag, fiber sack or drum liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer for recycling if available or dispose of empty paper or plastic bag, fiber sack or fiber drum and liner in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Refillable Fiber Drums With Liners: Refillable container (fiber drum only). Refilling Fiber Drum: Refill this fiber drum with VELPAR® DF VU HERBICIDE containing hexazinone only. Do not reuse this fiber drum for any other purpose. Cleaning before refilling is the responsibility of the refiller. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. **Disposing of Fiber Drum and/or Liner:** Do not reuse this fiber drum for any other purpose other than refilling (see preceding). Cleaning the container (liner and/or fiber drum) before final disposal is the responsibility of the person disposing of the container. Offer the liner for recycling if available or dispose of liner in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner. To clean the fiber drum before final disposal, completely empty the fiber drum by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer the fiber drum for recycling if available or 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.

All Other Refillable Containers: Refillable container. Refilling Container: Refill this container with VELPAR® DF VU HERBICIDE containing hexazinone only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. Check for leaks after refilling and before transporting. **Disposing of Container:** Do not reuse this container for any other purpose other than refilling (see preceding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then, (a) for Plastic Containers, 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, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Outer Pouches of Water Soluble Packets (WSP): Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or, dispose of the empty outer foil pouch in the trash as long as WSP is unbroken. If the outer pouch contacts the formulated product in any way, the pouch must be triple rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer pouch as described previously.

Do not transport if this container is damaged or leaking. If the container is damaged, leaking or obsolete, or in the event of a major spill, fire, or other emergency, contact ENVIRONMENTAL SCIENCE U.S., LLC at 1-800-424-9300, day or night.

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CONDITIONS OF SALE AND LIMITATIONS OF WARRANTY AND LIABILITY

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness, plant injury, other property damage, as well as other unintended consequences may result because of factors beyond the control of Environmental Science U.S., LLC. Those factors include, but are not limited to, weather conditions, presence of other materials or the manner of use or application. All such risks shall be assumed by the user or buyer.

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