



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

**EPA Reg. Number:**

83529-291

**Date of Issuance:**

10/4/23

**NOTICE OF PESTICIDE:**

Registration  
 Reregistration  
 (under FIFRA, as amended)

**Term of Issuance:**

Unconditional

**Name of Pesticide Product:**

Topple

**Name and Address of Registrant (include ZIP Code):**

Sharda USA LLC  
 PO Box 640  
 Hockessin DE 19707

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

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

**Signature of Approving Official:**

*Heather E McFarley*

Heather McFarley, Product Manager 24  
 Fungicide and Herbicide Branch, Registration Division (7505P)  
 Office of Pesticide Programs

**Date:**

10/4/23

2. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, “EPA Reg. No. 83529-291.”
3. Submit one copy of the revised final printed label for the record before you release the product for shipment.
4. **The data requirements for storage stability and corrosion characteristics (Guidelines 830.6317 and 830.6320) are not satisfied. A one-year study is required to satisfy these data requirements for each container type listed on the application and label including plastic and paper containers. You have 18 months from the date of registration to provide these data.**

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 5/08/2023

If you have any questions, please contact Sayed Islam by phone at 202-566-2796, or via email at [islam.sayed@epa.gov](mailto:islam.sayed@epa.gov)

Enclosure:

- Accepted label

# TOPPLE

Sulfometuron-methyl	GROUP	2	HERBICIDE
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Water Dispersible Granules

### Active Ingredients:

Sulfometuron-methyl

{Methyl 2-[[[(4,6-dimethyl-2-pyrimidinyl)amino]-carbonyl]amino] sulfonyl]benzoate}.....75.00%

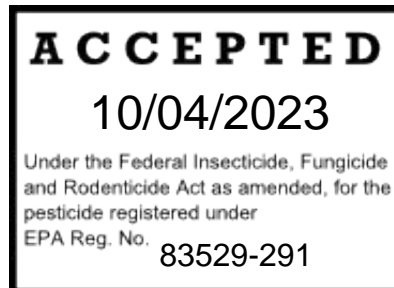
**Other Ingredients:**.....25.00%

**TOTAL**.....**100.00%**

EPA Reg. No. 83529-

EPA Est. No.

Produced for  
SHARDA USA LLC  
PO BOX 640  
HOCKESSIN DE 19707



### Nonfillable Container

Net:

OR

### Refillable Container

Net:

[Editorial Note- [Bracketed text] is optional]

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

See [Back][Side] Panel for First Aid Instructions and [Leaflet][Booklet] for Complete Precautionary Statements and Directions for Use. (Note to reviewer: Location of additional precautionary statements, directions for use will vary between those listed, depending on container type/size.)

### 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 five minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

For medical emergencies, call the poison control center at 1-800-222-1222. For general information on this product contact the National Pesticides Information Center (NPIC) at 1-800-858-7378, Monday through Friday, 8 AM to 12 PM PST, or at <http://npic.orst.edu>.

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION.** Causes moderate eye irritation. Avoid contact with eyes, or clothing. Wash thoroughly with soap and water after handling, and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

All mixers, loaders applicators and other handlers must wear:

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

**User Safety Requirement:** 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.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **DO NOT** reuse them.

**Engineering Control Statement:** Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40CFR 170.240(d)(6)].

9-21-23

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in 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 WPS.

## USER SAFETY RECOMMENDATIONS

### USERS SHOULD:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- 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.
- 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.

## ENVIRONMENTAL HAZARDS

For terrestrial uses, except under the forest canopy, **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 washwater or rinsate. Exposure to TOPPLE can injure or kill plants. Damage to susceptible plants can occur when soil particles are blown or wash of target onto cropland.

### Groundwater Advisory

Sulfometuron-methyl is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

### Surface Water Advisory

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of sulfometuron-methyl from runoff water and sediment. Runoff of this product will be greatly reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

### NON-TARGET ORGANISM ADVISORY

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 minimizing spray drift. For further guidance and instructions on how to minimize spray drift, refer to the Spray Drift Management section of this label.

### WINDBLOWN SOIL PARTICLES RESTRICTION

Applications may not be made to soil that is subject to wind erosion when less than a 60% chance of rainfall is predicted to occur in the treatment area within 48 hours. Soils that are subject to wind erosion usually have a high silt and/or fine to very fine sand fractions. Soils with low organic matter also tend to be prone to wind erosion.

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

## DIRECTIONS FOR USE

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

TOPPLE must be used only in accordance with instructions on this label or in Sharda USA LLC supplemental labeling.

Sharda USA LLC will not be responsible for losses or damages resulting from the use of this product in any manner not specifically instructed by the label. User assumes all risks associated with such non-labeled use to the extent consistent with applicable law.

**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 in your State responsible for pesticide regulation.

## MANDATORY SPRAY DRIFT REQUIREMENTS

### Aerial Applications:

- **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 an Extremely Coarse or Coarser droplet size (ASABE S572.1) for all applications.
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

Ground Boom Applications:

- Apply with the nozzle height specified by the manufacturer, but no more than 3 feet above the ground or target vegetation, unless making an industrial turf application, in which case applicators may apply with a nozzle height no more than 4 feet above the crop or target vegetation.
- Applicators are required to use an Extremely Coarse or coarser droplet size (ASABE S572.1) for all applications.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

Boom-less Ground Applications:

- Applicators are required to use an Extremely Coarse or coarser droplet size (ASABE S572.1) for all applications.
- **DO NOT** apply when wind speeds exceed 10 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 NON-TARGET 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 advised 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 directions for setting up nozzles. Generally, to reduce fine droplets, nozzles must be oriented parallel with the airflow in flight.

**BOOM HEIGHT – Ground Boom**

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

**RELEASE HEIGHT - Aircraft**

Higher release heights increase the potential for spray drift. When applying aerially to crops, **DO NOT** release spray at a height greater than 10 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.

## WINDBLOWN SOIL PARTICLES RESTRICTION

Applications may not be made to soil that is subject to wind erosion when less than a 60% chance of rainfall is predicted to occur in the treatment area within 48 hours. Soils that are subject to wind erosion usually have a high silt and/or fine to very fine sand fractions. Soils with low organic matter also tend to be prone to wind erosion.

## PRODUCT RESTRICTIONS

**DO NOT** make applications to natural or man-made bodies of water including lakes, reservoirs, ponds, streams and canals. If prevailing local conditions may be expected to result in off-site movement and cause damage to neighboring desirable vegetation or agricultural crops, **DO NOT** apply TOPPLE.

### Maximum Rate - Annual

- **DO NOT** apply more than 8 ounces TOPPLE per acre per year\* (0.375 lbs A.I./acre of sulfometuron-methyl).
- **DO NOT** apply more than 0.375 pounds of the active ingredient sulfometuron-methyl per acre per year when using any combination of products containing sulfometuron-methyl.
- **DO NOT** apply more than two applications per year for all uses.
- **DO NOT** apply less than 30 days between applications.

### Maximum Rate – Single Application on an Agricultural site

- **DO NOT** apply more than 4.25 ounces TOPPLE per acre\* (0.199 lbs A.I./acre of sulfometuron-methyl).
- **DO NOT** apply more than 0.199 pounds of the active ingredient sulfometuron-methyl per acre when using any combination of products containing sulfometuron-methyl.

### Maximum Rate – Single Application on a Non-Agricultural site

- **DO NOT** apply more than 6 ounces TOPPLE per acre\* (0.281 lbs A.I./acre of sulfometuron-methyl).
- **DO NOT** apply more than 0.281 pounds of the active ingredient sulfometuron-methyl per acre when using any combination of products containing sulfometuron-methyl.

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

- **DO NOT** treat frozen or snow covered soil.
- **DO NOT** use on lawns, walks, driveways, tennis courts, or similar areas.
- **DO NOT** apply in or on irrigation ditches or canals including their outer banks.
- **DO NOT** apply through any type of irrigation system.
- **DO NOT** use this product in the following counties of Colorado: Saguache, Rio Grande, Alamosa, Costilla and Conejos.
- **DO NOT** use on food or feed crops.
- **DO NOT** use on sod farms.

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

- Injury to or loss may occur if equipment is drained or flushed on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- Leave treated soil undisturbed to reduce the potential for TOPPLE movement by soil erosion due to wind or water.
- Treatment of powdery, dry soil or light, sandy soil when there is little likelihood of rainfall soon after treatment may result in off-target movement and possible damage to susceptible crops when soil particles are moved by wind or water. Injury to crops may result if treated soil is washed, blown, or moved onto land used to produce crops. Exposure to TOPPLE may injure or kill most crops. Injury may be more severe when the crops are irrigated. **DO NOT** apply TOPPLE when these conditions are identified and powdery, dry soil, or light or sandy soil are known to be prevalent in the area to be treated.
- Applications made where runoff water flows onto agricultural land may injure crops. Applications made during periods of intense rainfall, to soils saturated with water, surfaces paved with materials including asphalt or concrete, or soils through which rainfall will not readily penetrate may result in runoff and movement of TOPPLE.

- Keep from contact with fertilizers, insecticides, fungicides, and seeds.
- Low rates of TOPPLE can kill or severely injure most crops. Following an TOPPLE application, the use of spray equipment to apply other pesticides to crops on which TOPPLE is not registered may result in their damage. The most effective way to reduce this crop damage potential is to use dedicated mixing and application equipment.
- If noncrop or forested sites treated with TOPPLE are to be converted to a food, feed, or fiber agricultural crop, or to a horticultural crop, **DO NOT** plant the treated sites for at least one year after the TOPPLE application. A field bioassay must then be completed before planting to crops.

## PRODUCT INFORMATION

TOPPLE is a dispersible granule that is mixed in water and applied as a spray or impregnated on dry, bulk fertilizer. TOPPLE controls many annual and perennial grasses and broadleaf weeds in forestry and non-agricultural sites.

TOPPLE may be used for general weed control on terrestrial non-agricultural sites and for selective weed control in certain types of unimproved turf grasses on these same sites. TOPPLE may also be used for selective weed control in forest site preparation and in the release of certain conifers and hardwoods. TOPPLE can be tank mixed with other herbicides registered for use in forestry and non-agricultural sites; when tank mixing, use the most restrictive limitations from the labeling of both products. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

When applied as spray, TOPPLE controls weeds by both preemergence and postemergence activity. When applied on dry fertilizer, TOPPLE controls weeds by preemergence activity. When applied on dry fertilizer, the best results are obtained when the application is made before weed emergence. The best results are obtained when the application is made before or during the early stages of weed growth before weeds develop an established root system. Moisture is required to move TOPPLE into the root zone of weeds for preemergence control.

This product may be applied on forestry 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 intermittently flooded low lying sites, seasonal 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.

A drift control agent may be used at the manufacturer's listed rate in the application of TOPPLE. TOPPLE is noncorrosive, nonflammable, nonvolatile and does not freeze.

For best postemergence results, apply TOPPLE to young, actively growing weeds. The use rate depends upon the weed species, weed size at application, and soil texture. The degree and duration of control may depend on the following:

- weed spectrum and infestation intensity
- weed size at application
- environmental conditions at and following treatment
- soil pH, soil moisture, and soil organic matter

Use a high rate on established plants and on fine-textured soils and a lower rate on smaller weeds and coarse-textured soils.

## ENVIRONMENTAL CONDITIONS AND BIOLOGICAL ACTIVITY

When applied as a spray, TOPPLE is absorbed by both the roots and foliage of plants, rapidly inhibiting the growth of susceptible weeds. When applied on dry fertilizer, TOPPLE is absorbed primarily by the roots. 2 to 3 weeks after application to weeds, leaf growth slows, and the growing points turn reddish-purple. Within 4 to 6 weeks of application, leaf veins and leaves become discolored, and the growing points subsequently die.

Warm, moist conditions following application accelerate the herbicidal activity of TOPPLE; cold, dry conditions delay the herbicidal activity. In addition, weeds hardened-off by drought stress are less susceptible to TOPPLE. Moisture is needed to move TOPPLE into the soil for preemergence weed control.

## 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

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

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

- Rotate the use of Topples or other Group 2 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weed), biological (weed-competitive crops or varieties) and other management practices.
- Scout before and after herbicide application to monitor weed population for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact Sharda USA LLC at <https://shardausa.com>.

## 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.

## PREPARING FOR USE - Site Specific Considerations

Understanding the risks associated with the application is essential to aid in preventing off-site injury to desirable vegetation and agricultural crops. The risk of off-site movement both during and after application may be affected by a number of site specific factors including the nature, texture, and stability of the soil, the intensity and direction of prevailing winds, vegetative cover, site slope, rainfall, drainage patterns, and other local physical and environmental conditions. A careful evaluation of the potential for off-site movement from the intended application site, including movement of treated soil by wind or water erosion, must be made prior to using TOPPLE. This evaluation is particularly critical where desirable vegetation or crops are grown on neighboring land for which the use of TOPPLE is not labeled.

Before applying TOPPLE the user must read and understand all label directions, precautions and restrictions completely, including these requirements for a site specific evaluation. If you **DO NOT** understand any of the instructions or precautions on the label, or are unable to make a site specific evaluation yourself, consult your local agricultural dealer, cooperative extension service, land managers, professional consultants, or other qualified authorities familiar with the area to be treated.

## 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** enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 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, including plants, soil, or water, is:

Coveralls



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

## FORESTRY

### Application Information

TOPPLE is labeled to control many broadleaf weeds and grasses in forestry sites. Apply sprays by ground equipment or by helicopter or as otherwise directed by Special Local Need labeling. Apply impregnated fertilizer by ground equipment or by air (helicopter or fixed-wing aircraft).

TOPPLE may be tank mixed with other herbicides registered for use in forestry; when tank mixing use the most restrictive limitations from the labels of both products. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

### USE RESTRICTIONS FORESTRY

- Apply only to trees which have been established for a minimum of 1 year.
- Apply when the trees are dormant.
- **DO NOT** apply more than 8 ounces TOPPLE per acre per year (contains 0.375 pounds of sulfometuron-methyl).
- **DO NOT** apply more than 4.25 ounces TOPPLE per acre per single application (contains 0.199 pounds of sulfometuron-methyl).
- **DO NOT** apply more than two applications per year
- **DO NOT** apply less than 30 days between applications.
- **DO NOT** apply TOPPLE to conifers or hardwoods grown for Christmas trees or ornamentals.

### USE PRECAUTIONS FORESTRY

- Avoid contact of the spray with green buds or tissue as injury to the trees may result.
- Avoid applications during the period when the hybrid poplar are actively growing.
- TOPPLE applications made with boomless nozzle spray equipment may cause severe injury to conifers and/or poor weed control performance due to the inherent variability (rate and coverage) in the application.
- Leave treated soil undisturbed to reduce the potential for TOPPLE movement by soil erosion due to wind or water.
- Applications of TOPPLE made to trees, conifers, or hardwoods that are suffering from loss of vigor caused by insects, diseases, drought, winter damage, animal damage, excessive soil moisture, planting shock, previous agricultural practices, or other stresses, may injure or kill the trees.
- Applications of TOPPLE made for release (trees present) must only be made after adequate rainfall has closed the planting slit and settled the soil around the roots following transplanting.
- If a surfactant is used with TOPPLE, allowing the spray to contact tree foliage may injure or kill trees. The user assumes all responsibility for tree injury if a surfactant is used with TOPPLE treatments applied after planting to the extent consistent with applicable law.
- TOPPLE applications may result in damage and mortality to other species of trees when they are present on sites with those listed in the preceding directions for forestry uses.
- Use on hardwood trees growing in soils having a pH of 7 or greater may injure or kill the trees.
- Careful consideration must be given by an experienced and knowledgeable forester to match the requirements of the hardwood tree species to the conditions of the site. Treatment of species mismatched to the site may injure or kill the trees.

### Application Timing

Apply TOPPLE sprays before herbaceous weeds emerge or shortly thereafter. Apply impregnated fertilizer before weeds emerge.

### Weeds Controlled

TOPPLE effectively controls the following weeds when applied at the use rates indicated for the respective crop species:

Chickweed	Nutsedge (yellow)
Crabgrass	Panicums (broadleaf, fall, narrow)
Dogfennel	Pokeweed
Fescue	Ragweed
Fireweed (willowweed)	Shepherd's purse
Goldenrod	White snakeroot
Horseweed	Yellow sweetclover
Kentucky bluegrass	

See also weeds controlled under **Application Information—Non-Agricultural (Industrial) Sites**

### Application Rates

Apply TOPPLE at the rates indicated by region. Use a low rate on coarse-textured soils (i.e., loamy sands, sandy loams) and a

higher rate on fine-textured soils (i.e. sandy clay loams and silty clay loams).

## CONIFERS

### Conifer Site Preparation Application Before Transplanting

Make all applications before transplanting to control herbaceous weeds.

**Southeast**—Apply 2 to 4.25 ounces (0.094 - 0.199 pounds of the active ingredient sulfomethuron-methyl) per acre for loblolly, longleaf, slash, and Virginia pine. Pines may be transplanted in treated areas in the planting season following application.

**Northeast and Lake States**—Apply 2 to 4 ounces (0.094 - 0.1875 pounds of the active ingredient sulfomethuron-methyl) per acre for black spruce. Transplant not less than 13 months after treatment.

Apply 1 to 2 ounces (0.04688 - 0.094 pounds of the active ingredient sulfomethuron-methyl) per acre for red pine. Transplant the following spring or summer but not less than 3 months after application. Areas receiving 1/2 to 1 ounce (0.0234-0.4688 pounds of the active ingredient sulfomethuron-methyl) per acre may be transplanted a minimum of 30 days following application.

**West**—Apply 2 to 4 ounces (0.094 - 0.1875 pounds of the active ingredient sulfomethuron-methyl) per acre for coastal redwood, Douglas fir, grand fir, hemlock, lodgepole pine, ponderosa pine, western larch, western white pine and white fir. Where western red cedar is a primary species apply 2 to 3 ounces (0.094 - 0.141 pounds of the active ingredient sulfomethuron-methyl) per acre, as higher rates may cause unacceptable injury. Without prior experience, it is advised that small area planting be tested for crop safety to TOPPLE before large scale plantings are made. The user accepts all responsibility for injury on any conifer species not listed above to the extent consistent with applicable law.

For ponderosa pine in California and other arid areas, apply in the fall and transplant the following spring.

All Regions - Other species of conifers may be planted providing the user has experience indicating acceptable crop safety to TOPPLE.

### Conifer Release Application After Transplanting

Apply TOPPLE after transplanting to control herbaceous weeds.

**Southeast**—Apply 2 to 4.25 ounces (0.094 - 0.199 pounds of the active ingredient sulfomethuron-methyl) per acre for loblolly, longleaf, slash or Virginia pine. Apply 1 to 1 1/2 ounces (0.046875 - 0.0703 pounds of the active ingredient sulfomethuron-methyl) per acre for easternwhite pine. Apply 1 to 2 ounces (0.046875 - 0.094 pounds of the active ingredient sulfomethuron-methyl) per acre for shortleaf pine.

To control a broader spectrum of weeds in loblolly, slash, or longleaf plantings apply 2 - 4 ounces TOPPLE (0.094 - 0.1875 pounds of the active ingredient sulfomethuron-methyl) plus Velpar L CU herbicide (active ingredient Hexazinone and EPA reg 61842-47) or of Velpar DF CU (active ingredient Hexazinone and EPA reg 61842-48). Use lower rates of both products on coarse sandy textured soils low in organic matter. Use higher rates on fine textured soils high in clay content or organic matter. For bare root seedlings application maybe made after sufficient rainfall has closed the planting slits. For containerized seedlings assure there is significant root growth outside the plug prior to application. It is suggested several trees be dug, inspected, and replanted to confirm root growth prior to application.

To enhance control of bermudagrass and Johnsongrass in stands of loblolly pine, apply 2 ounces of TOPPLE (0.094 pounds of the active ingredient sulfomethuron-methyl) plus imazapyr. For the best results, make the application during late winter through spring when weeds first emerge. Imazapyr may temporarily inhibit pine growth if it is applied when pine is actively growing.

### Northeast and Lake States—

Apply 2 to 4.25 ounces (0.094 - 0.199 pounds of the active ingredient sulfomethuron-methyl) per acre for jack or Virginia pine.

Apply 1 to 1 1/2 ounces (0.046875 - 0.0703 pounds of the active ingredient sulfomethuron-methyl) per acre for eastern white pine.

Apply 1 1/2 to 3 ounces (0.0703 - 0.141 pounds of the active ingredient sulfomethuron-methyl) per acre white spruce

Apply 1/2 to 2 ounces (0.0234 - 0.094 pounds of the active ingredient sulfomethuron-methyl) per acre for red pine not less than 1 year following transplanting.

Make applications when trees are dormant. Applications at budbreak and later stages of active growth may severely injure or kill trees.

**West**—Apply 2 to 4 ounces (0.094 - 0.1875 pounds of the active ingredient sulfomethuron-methyl) per acre for coastal redwood, Douglas fir, grand fir, hemlock, lodgepole pine, ponderosa pine, western larch, western white pine and white fir. Where western red cedar is a primary species apply 2 to 3 ounces (0.094 - 0.141 pounds of the active ingredient sulfomethuron-methyl) per acre, as higher rates may cause unacceptable injury. Other species of conifers may be treated providing the user has experience indicating acceptable crop safety to TOPPLE. Without prior experience, it is advised that small areas be treated with TOPPLE to determine selectivity on specific conifer species before large scale treatments are made. The user accepts all responsibility for injury on any conifer species not listed above to the extent consistent with applicable law. 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. For ponderosa pine in California and other arid areas, TOPPLE must be applied over dormant seedlings in the spring following fall planting or in the fall over dormant trees following spring planting.

## FERTILIZER IMPREGNATION

TOPPLE may be used to impregnate or coat dry bulk fertilizer to be applied on forested areas. Dry bulk fertilizer may be impregnated with TOPPLE for application in the establishment of loblolly and slash pine.

### IMPREGNATION

To impregnate the fertilizer, use a system consisting of a conveyor or closed drum used to blend dry bulk fertilizer. Some fertilizers including potassium nitrate, sodium nitrate and triple super phosphate are not compatible with TOPPLE. Diammonium phosphate, potassium chloride, 16-16-16 and 24-4-4 have been successfully used. **DO NOT** use TOPPLE on limestone.

If fertilizer materials are excessively dusty, use a suitable additive to reduce dust prior to impregnation. Dusty fertilizer may result in poor distribution and excessive risk of drift during application. The dry fertilizer must be properly impregnated and uniformly applied to avoid potential tree injury/mortality and poor weed control.

Consult the Application Rates section of this label for the appropriate rate of TOPPLE to be used per acre. Apply this amount of TOPPLE to the volume of fertilizer to be applied per acre. To impregnate dry bulk fertilizer, mix the amount of TOPPLE as prescribed above in a sufficient quantity of water to uniformly coat the desired amount of fertilizer. Suspensions of TOPPLE will require thorough agitation. Direct the spray nozzles to deliver a fine spray of the mixture toward the fertilizer for uniform coverage. The use of a colorant or dye may be beneficial to visually determine the uniformity of impregnation.

Impregnation of TOPPLE to dry bulk fertilizer may vary. If absorption of the impregnating spray by the fertilizer is not adequate, the use of an absorptive powder or additive, such as MicroCel E (Celite Corporation) or HiSill - 233 (PPG Industries Ohio, Inc.) may be required to produce a dry, free-flowing mixture.

Apply impregnated fertilizer as soon as possible after impregnation for optimum performance. Impregnated fertilizer may become lumpy and difficult to apply following storage. Uniform and precise application of the fertilizer impregnated with TOPPLE is essential for satisfactory weed control and to minimize tree injury.

Follow the instructions for spray tank cleanout on this label for cleaning the equipment used to impregnate, transport, and apply the fertilizer.

Low rates of TOPPLE can kill or severely injure most crops. Following an TOPPLE application, the use of spray equipment to apply other pesticides to crops on which TOPPLE is not registered may result in their damage. The most effective way to reduce this crop damage potential is to use dedicated mixing and application equipment.

## BROADCAST APPLICATION

Applications may be made by ground or air (helicopter or fixed wing aircraft).

Accurate calibration of the application equipment is essential for uniform distribution on the soil surface. Overlaps or skips between adjoining swaths or non-uniform distribution of impregnated fertilizer within the swath will deliver poor results and may result in tree injury or mortality.

## HARDWOODS

### Hardwood Site Preparation Application Before Transplanting

Apply 3 to 4.25 ounces (0.094 - 0.199 pounds of the active ingredient sulfomethuron-methyl) per acre on sites where northern red oak, white oak, chestnut oak, American sycamore, ash (white or green), red maple, sweetgum, or yellow poplar are to be planted. Make all applications before transplanting.

**West**—For hybrid poplar west of the Cascade mountains, apply 1/2 to 1 1/4 ounces (0.0234 - 0.094 pounds of the active ingredient sulfomethuron-methyl) per acre. Use 1 to 1 1/4 ounces (0.046875 - 0.094 pounds of the active ingredient sulfomethuron-methyl) per acre for heavy weed infestations and where maximum residual control is desired. Use 1/2 to 3/4 ounce (0.0234 - 0.035 pounds of the active ingredient sulfomethuron-methyl) per acre for light weed infestations or where small diameter cuttings are to be planted. Allow a minimum of 3 days between application and planting. Limit the first use to a small area to determine the selectivity of TOPPLE on specific clones. TOPPLE must be activated by rainfall or overhead irrigation before weeds become well established. Use of TOPPLE may cause temporary chlorosis (yellowing) or a small reduction in tree height during the year of use.

### Hardwood Release Application After Transplanting

Apply 1 to 4 ounces (0.046875 - 0.1875 pounds of the active ingredient sulfomethuron-methyl) per acre in stands of American sycamore, ash (white or green), bald cypress, oaks (including chestnut, northern red, southern red, overcup, pin, swamp chestnut, cherry bark, water, white, pin, etc.), red maple, sweetgum, or yellow poplar.

Apply TOPPLE before hardwood tree seedlings or transplants break dormancy (bud swell stage). Applications made over the top after the trees have broken dormancy may injure or kill the trees.

**West**—For hybrid poplar west of the Cascade mountains, apply 1/2 to 1 1/4 ounces (0.0234 - 0.059 pounds of the active ingredient sulfomethuron-methyl) per acre. Use 1 to 1 1/4 ounces (0.046875 - 0.059 pounds of the active ingredient sulfomethuron-methyl) per acre for heavy weed infestations and where maximum residual control is desired. Use 0.5 to 0.75 ounce (0.0234 - 0.035 pounds of the active ingredient sulfomethuron-methyl) per acre for light weed infestations or when small diameter cuttings have been planted. Limit the first use to a small area to determine the selectivity of TOPPLE on specific clones. TOPPLE must be activated by rainfall or overhead irrigation before weeds become well established. Use of TOPPLE may cause temporary chlorosis (yellowing) or a small reduction in tree height during the year of use.

**West Restrictions:**

Apply only to trees which have been established for a minimum of 1 year. Apply when the trees are dormant and avoid contact of the spray with green buds or tissue as injury to the trees may result. Avoid applications during the period when the hybrid poplar are actively growing; from bud-swell in the spring to leaf drop in the fall.

**Lake States**—For hybrid poplar in the Lake States, apply at the rate of 1 to 2 ounces (0.046875 - 0.094 pounds of the active ingredient sulfomethuron-methyl) per acre in the fall or early winter. When late winter or early spring applications are made use 1 ounce (0.046875 pounds of the active ingredient sulfomethuron-methyl) per acre. Limit the first use to a small area to determine the selectivity of TOPPLE on specific clones. Use of TOPPLE may cause temporary chlorosis (yellowing) or a small reduction in tree height during the year of use.

**Lake States Restriction:**

Apply when the trees are dormant and avoid contact of the spray with green buds or tissue as injury to the trees may result. Avoid applications during the period when the hybrid poplar are actively growing; from bud-swell in the spring to leaf drop in the fall. Apply only to trees which have been established for a minimum of 1 year.

**Natural Hardwood Regeneration**

TOPPLE is labeled for herbaceous weed control in commercial reforestation areas where hardwood seedling regeneration is desired following shelterwood seed cuts. Apply 2 to 4.25 ounces (0.094 - 0.199 pounds of the active ingredient sulfomethuron-methyl) per acre using appropriate ground equipment. For control of striped maple and beech, tank mix with glyphosate. For best results, apply from late summer to mid-fall. Note that hardwood seedlings present at the time of application may be severely injured or killed.

**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 Part170). The WPS applies when this product is used to produce agricultural plants on farms, forests,nurseries, or greenhouses.

Use on noncrop sites and turf (unimproved) are not within the scope of the Work Protection Standard.

**DO NOT** enter or allow worker entry into treated areas until sprays have dried.

**NON-AGRICULTURAL (INDUSTRIAL) SITES**

**Application Information**

TOPPLE is labeled for general weed control on non-agricultural areas that include airports, highways, railroad, utility rights-of-way (ROW), sewage disposal area, farmyards, fuel storage areas, fence rows, barrier strips, lumberyards, pipelines, and tank farms.

TOPPLE is not labeled for use on recreation areas, sod farms or for direct application to paved areas (surfaces).

In the states of Louisiana and Texas, TOPPLE may be used for weed control on dry, drainage ditch banks.

**USE RESTRICTION**

- **DO NOT** apply in or on irrigation ditches or canals including their outer banks.
- **DO NOT** apply more than 8 ounces (contains 0.375 pounds of sulfometuron-methyl) TOPPLE per acre per year.
- **DO NOT** apply more than 6 ounces (contains 0.281 pounds of sulfometuron-methyl) TOPPLE per acre per single application.
- **DO NOT** apply more than two applications per year.
- **DO NOT** apply less than 30 days between applications.

Apply by ground or helicopter or as otherwise directed by Special Local Need Labeling.

Combination with other herbicides broadens the spectrum of weeds controlled. In addition, total vegetation control can be achieved with higher rates of TOPPLE plus residual-type companion herbicides. To improve the control of weeds, add surfactant at 0.25% by volume.

## AREAS OF 20" OR LESS ANNUAL RAINFALL (ARID AREAS)

### Application Timing

Apply TOPPLE as a preemergence or early postemergence spray before or during the rainy season when weeds are actively germinating or growing.

### Weeds Controlled

TOPPLE effectively controls the following broadleaf weeds and grasses when applied at the rates shown.

### Application Rates

Apply TOPPLE at the rates indicated by weed type. When applied at lower rates, TOPPLE provides short-term control of weeds listed; when applied at higher rates, weed control is extended.

<b>Broadleaf Weeds</b>	<b>1 1/3 to 2 ounces (0.062 – 0.094 lbs a.i.) per acre</b>
Annual sowthistle	Common yarrow
Black mustard	Curly dock
Buckhorn plantain	Prickly coontail
Burclover	Seaside heliotrope
Carolina geranium	Spreading orach
Chickweed	Sunflower
Common mallow	Western ragweed
Common speedwell	Whitestem filaree
<b>Grasses (up to 6 to 12" tall)</b>	<b>3/4 to 1 1/2 ounces (0.035- 0.0703 lbs a.i.) per acre</b>
Cheat	Medusahead
Downy brome	
<b>Grasses (up to 6 to 12" tall)</b>	<b>1 1/3 to 2 ounces (0.062- 0.094 lbs a.i.) per acre</b>
Annual bluegrass	Red brome
Barnyardgrass	Reed Canarygrass
Foxtail barley	Ripgut brome
Foxtail fescue	Seashore saltgrass
Italian ryegrass	Signalgrass
Jointed goatgrass	Yellow foxtail
<b>Grasses</b>	<b>2 to 3 ounces (0.094-0.141 lbs a.i.) per acre</b>
Smooth brome	

The weeds listed in **Areas of 20" Or More Annual Rainfall** can also be controlled in arid areas; however, TOPPLE must be applied at 3 to 6 ounces (0.094 - 0.281 pounds of the active ingredient sulfomethuron-methyl) per acre to control those weeds. These higher rates also provide control of severe infestations and longer term control of weeds listed for arid areas.

## AREAS OF 20" OR MORE ANNUAL RAINFALL

### Application Timing

Apply TOPPLE as a preemergence or early postemergence spray before or during the rainy season when weeds are actively germinating or growing.

### Weeds Controlled

TOPPLE effectively controls the following broadleaf weeds and grasses when applied at the rates shown.

### Application Rates

Apply TOPPLE at the rates indicated by weed type. When applied at lower rates, TOPPLE provides short term control of weeds listed; when applied at higher rates, weed control is extended.

<b>Broadleaf Weeds</b>	<b>3 to 5 ounces (0.094-0.234 lbs a.i.) per acre</b>
Annual sowthistle	Pepperweed
Bouncingbet	Pigweed
Burclover	Purple starthistle
Carolina geranium	Ragweed
Common chickweed	Sunflower
Common dandelion	Sweet clover
Common speedwell	Tansymustard
Common yarrow	Tansy ragwort
Crimson clover	Tumble mustard

Dogfennel  
Hoary cress (whitetop)  
Little mallow  
Mustard  
Ox-eye daisy

Vetch  
Wild carrot  
Wild oats  
Yellow rocket

**Broadleaf Weeds**

**6 ounces (0.281 lbs a.i.) per acre**

Bedstraw  
Canada thistle  
Curly dock  
Redstem filaree  
Goldenrod

Horsetail (Equisetum)  
Kudzu  
Musk thistle  
Turkey mullein  
Wild blackberry

**Grasses**

**3 to 5 ounces (0.094-0.234 lbs a.i.) per acre**

Alta fescue  
Annual bluegrass  
Annual ryegrass  
Bahagrass  
Barnyardgrass  
Downy brome  
Fescue  
Foxtails (except green)  
Foxtail barley  
Indiangrass  
Italian ryegrass

Kentucky bluegrass  
Little barley  
Red brome  
Red fescue  
Reed canarygrass  
Ripgut brome  
Ryegrass  
Smooth brome  
Sprangletop (annual)  
Wheat (volunteer)

**Grasses**

**6 ounces (0.281 lbs a.i.) per acre**

Johnsongrass

For short-term (up to 3 months) control of Johnsongrass, apply early postemergence.

**Note:** Use the higher level of listed dosage ranges under the following conditions:

- heavy weed growth
- soils containing more than 2 1/2% organic matter
- high soil moisture areas, including along road edges or railroad shoulders

For planting areas treated with TOPPLE refer to the GRASS REPLANT INTERVALS section of this label.

**SPECIFIC WEED PROBLEMS NON-AGRICULTURE SITES**

**Kochia, Russian Thistle, and Prickly Lettuce**

Since biotypes of kochia, Russian thistle, and prickly lettuce are known to be resistant to TOPPLE, tank mixture combinations with herbicides having different modes of action, including diuron, HYVAR® X HERBICIDE (EPA Reg # 5481-632 and Active ingredient Bromacil) or KROVAR® I DF HERBICIDE (EPA Reg # 5481-635 and Active Ingredients Bomacil and Diuron), must be used. In areas where resistance is known to exist, these weeds should be treated postemergence with other herbicides registered for their control, example 2,4-D or dicamba. **DO NOT** allow kochia, Russian thistle, or prickly lettuce to form matureseed.

**TANK MIX COMBINATIONS**

To improve preemergence to early postemergence control of weeds and grasses, add 2 to 6 ounces of TOPPLE (0.094- 0.281 pounds of the active ingredient sulfomethuron-methyl) per acre to the labeled rates of the following herbicides: HYVAR® X HERBICIDE (EPA Reg # 5481-632 and Active ingredient Bromacil), KROVAR® I DF HERBICIDE (EPA Reg # 5481-635 and Active Ingredients Bomacil and Diuron), VELPAR® L VU HERBICIDE (EPA REG. # 432-1573 and Active Ingredient Hexazinone), VELPAR® DF VU HERBICIDE (EPA Reg. # 432-1576 and Active Ingredient Hexazinone), ESCORT® XP HERBICIDE (EPA Reg # 432-1549 and Active Ingredient Metsulfurin) (**DO NOT** use in California), TELAR® XP HERBICIDE (EPA Reg. # 432-1561 and Active Ingredient Chlorsulfuron), diuron, glyphosate, dicamba, or 2,4-D.

Apply TOPPLE plus a companion herbicide at the rates and timing as shown on package labels for target weeds. For application method and other use specifications, use the most restrictive directions for the intended combination. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

**DO NOT** tank mix TOPPLE with HYVAR® X-L HERBICIDE (EPA Reg. # 432-1548 and Active Ingredient Lithium salt of bromacil).

**UNDER ASPHALT AND CONCRETE PAVEMENT**

**Application Information**

TOPPLE can be used to control weeds under asphalt and concrete pavement, including that used in parking lots, highway shoulders, median strips, roadways.

TOPPLE will not control tubers, rhizomes, woody vegetation including small trees, brush or woody vines.

TOPPLE must only be used in an area that has been prepared according to good construction practices. Use sufficient water to ensure uniform coverage, generally 100 gallons per acre. Agitate the tank continuously to keep Topple in suspension.

### Application Timing

TOPPLE must be applied immediately before paving to avoid lateral movement of the herbicide as a result of soil movement due to rainfall or mechanical means.

### Application Rate

Apply TOPPLE at 4 to 6 ounces (0.188 - 0.281 pounds of the active ingredient sulfomethuron-methyl) per acre. Use a higher rate on hard-to-control weeds and for long-term control.

### Tank Mix Combinations Under Asphalt and Concrete Pavement

For broader spectrum control or for an extended period of control under asphalt or concrete pavement, TOPPLE may be applied as a tank mix with HYVAR® X HERBICIDE (EPA Reg # 5481-632 and Active ingredient Bromacil) at 6 to 15 pounds per acre or KROVAR® I DF HERBICIDE (EPA Reg # 5481-635 and Active Ingredients Bomacil and Diuron) at 7 to 15 pounds per acre.

### USE RESTRICTIONS UNDER ASPHALT

- **DO NOT** use TOPPLE under pavement in residential properties including driveways, or in recreational areas, including jogging or bike paths, tennis courts, or golf cart paths.

### USE PRECAUTIONS UNDER ASPHALT

- Desirable plants may be injured if their roots extend into treated areas or if planted in treated areas.

### INDUSTRIAL TURFGRASS

#### Application Information

TOPPLE may be used to control weeds on industrial turfgrass, on roadsides where the turfgrass is well established as a ground cover. Applications may temporarily suppress grass growth and inhibit seedhead formation (chemical mowing).

#### Bermudagrass Release

##### Application Timing

Apply TOPPLE after bermudagrass has broken dormancy and is well established, usually 30 days after initial spring flush. If additional applications are necessary, apply OUST® XP HERBICIDE (EPA Reg # 432-1552 and Active Ingredients Sulfometuron) again during late spring to early summer. On established weeds, apply TOPPLE 1 to 2 weeks after mowing for the best results. TOPPLE may also be applied in late fall or early winter. Use the lower rates on small seedling weeds and a higher rate on larger weeds. Also, refer to the listing of Weeds Controlled under Noncrop Weed Control.

#### Weeds Controlled

TOPPLE may be used to control the following weeds when applied at the use rates shown.

<b>Late Spring to Early Summer</b>	<b>1 to 2 ounces (0.046875-0.094 lbs a.i.)/acre</b>
Carolina Geranium	Goldenrod
Fescue	Spotted Spurge
Foxtail	Wild carrot
<b>Spring to Fall</b>	<b>2 to 3 ounces (0.094-0.141 lbs a.i.)/acre</b>
Johnsongrass	
<b>Late Fall to Early Winter</b>	<b>1 to 4 ounces (0.046875-0.1875 lbs a.i.)/acre</b>
Carolina geranium	Little barley
Common Chickweed	Wild blackberry
Fescue	

#### Tank Mix Combinations—Bermudagrass (South Only)

Apply 1 to 2 ounces TOPPLE (0.046875 - 0.094 lbs a.i.) per acre as a tank mix with MSMA per acre on well established bermudagrass during the summer. Refer to the MSMA package label for a list of additional weeds that may be controlled. Two or more sequential applications of MSMA alone may be necessary to maintain weed control. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.



## Centipedegrass Release

### Application Timing

Apply 1 to 2 ounces (0.046875-0.094 lbs a.i. sulfomethuron-methyl) per acre of TOPPLE in the fall or early winter, or in the early summer following greenup of the centipede. Refer to the listing of Weeds Controlled under Bermudagrass Release.

## Bahiagrass Release and Seedhead Suppression

### Application Timing

Apply ½ to 1 ounces (0.0234-0.046875 lbs a.i. sulfomethuron-methyl) TOPPLE per acre to turfgrass after green-up and before seedheads emerge (boot stage). Ensure that desirable grasses are well established at application, as premature treatment may result in top kill and stand reduction of desirable turfgrass. Make only one application per year.

## Smooth Brome and Crested Wheatgrass Release and Suppression

### Application Timing

Apply 1 ounce (0.046875 lbs a.i. sulfomethuron-methyl) TOPPLE per acre to turfgrass after green-up and before seedheads emerge (boot stage). Ensure that desirable grasses are well established at application, as premature treatment may result in top kill and stand reduction of desirable turfgrass. Make only one application per year.

## Weeds Controlled

TOPPLE may be used to control the following weeds when applied at the use rates shown.

Late Spring to Early Summer	1 ounce/acre (0.046875 lbs a.i.)/acre
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Downy Brome	Goldenrod
Foxtail	

## USE RESTRICTIONS INDUSTRIAL TURFGRASS

- **DO NOT** apply more than 8 ounces (contains 0.375 pounds of sulfometuron-methyl) TOPPLE per acre per year.
- **DO NOT** apply more than 6 ounces (contains 0.281 pounds of sulfometuron-methyl) TOPPLE per acre per single application.
- **DO NOT** apply more than two applications per year
- **DO NOT** apply less than 30 days between applications.

## USE PRECAUTIONS INDUSTRIAL TURFGRASS

- Excessive injury to turf may result if a surfactant is used with TOPPLE applications made to actively growing turf. The user assumes all responsibility for turf injury if a surfactant is used with TOPPLE treatments applied to actively growing turf to the extent consistent with applicable law.
- TOPPLE may temporarily discolor or cause top kill of turf grasses. Applications made while turf is dormant may delay green-up in the spring.
- Annual retreatments may reduce vigor, particularly at the higher labeled use rates, where bahiagrass, crested wheatgrass, and smooth brome are grown.
- TOPPLE application on turf that is under stress from drought, insects, disease, cold temperatures, or late spring frost, may result in injury.

## GRASS REPLANT INTERVALS

Following a treatment with OUST® XP HERBICIDE (EPA Reg # 432-1552 and Active Ingredients Sulfometuron) the following grasses may be replanted at least 3 months after a spring application:

Green needlegrass, meadow brome, Russian wild rye, and switchgrass.

The following grasses may be replanted at least 6 months after a spring application:

Alta fescue, meadow foxtail, orchard grass, smooth brome, sheep fescue, and western wheatgrass.

The intervals are for soils with a pH of less than 7.5. Soils having a pH greater than 7.5 will require longer intervals. The intervals are for applications made in the spring. Because TOPPLE degradation is slowed by cold or frozen soils, applications made in the fall must consider the intervals as beginning in the spring following treatment.

Testing has indicated that there is considerable variation in response among species and types of grasses when seeded into areas treated with TOPPLE. If species other than those listed above are to be planted into areas treated with TOPPLE a field bioassay must be performed, or previous experience may be used to determine the feasibility of replanting treated areas.

To conduct a field bioassay, grow to maturity test strips of the grass(es) you plan to grow the following year. The test strips must cross the entire field including knolls and low areas. Crop response to the bioassay will indicate whether or not to plant the grass(es) grown in the test strips.

## FIELD BIOASSAY

To conduct a field bioassay, grow to maturity test strips of the crop(s) you plan to grow the following year. The test strips must cross the entire field including knolls and low areas. Crop response to the bioassay will indicate whether or not to plant the crops(s) grown in the test strips. In the case of suspected offsite movement of TOPPLE to cropland, soil samples must be quantitatively analyzed for TOPPLE or any other herbicide which could be having an adverse effect on the crop, in addition to conducting the above-described bioassay.

## SPRAY EQUIPMENT

Low rates of TOPPLE can kill or severely injure most crops. Following an TOPPLE application, the use of spray equipment to apply other pesticides to crops on which TOPPLE is not registered may result in their damage. The most effective way to reduce this crop damage potential is to use dedicated mixing and application equipment.

## APPLICATION

### Ground

Use a sufficient volume of water to ensure thorough coverage when applying TOPPLE as a broadcast or directed spray. Select a spray volume and delivery system that will ensure thorough coverage and a uniform spray pattern. Be sure the sprayer is calibrated before use. Avoid overlapping and shut off spray booms while starting, turning, slowing, or stopping to avoid injury to desired species.

### Air

Select a spray volume and delivery system that will ensure thorough coverage and a uniform spray pattern. Be sure the sprayer is calibrated. Avoid overlapping and shut off spray booms while starting, turning or slowing to avoid injury to desired species.

## MIXING INSTRUCTIONS

1. Fill spray tank 1/2 full of water.
2. With the agitator running, add the proper amount of TOPPLE.
3. If using a companion product, add the directed amount.
4. For postemergent applications, add the proper amount of spray adjuvants.
5. Add the remaining water.
6. Agitate the spray tank thoroughly.

TOPPLE spray preparations are stable if they are pH neutral or alkaline and stored at or below 100°F.

## SPRAYER CLEANUP

Thoroughly clean all mixing and spray equipment following applications of TOPPLE as follows:

1. Drain tank; thoroughly rinse spray tanks, boom, and hoses with clean water.
2. Fill the tank with clean water and 1 gallon of household ammonia (contains 3% active) for every 100 gallons of water. Flush the hoses, boom, and nozzles with the cleaning solution. Then add more water to completely fill the tank. Circulate the cleaning solution through the tank and hoses for at least 15 min. Flush the hoses, boom, and nozzles again with the cleaning solution, and then drain the tank.  
Equivalent amounts of an alternate-strength ammonia solution or a commercial cleaner can be used in the cleanout procedure. If a commercial cleaner is used, carefully read and follow the individual cleaner instructions.
3. Remove the nozzles and screens and clean separately in a bucket containing cleaning agent and water.
4. Repeat step 2.
5. Rinse the tank, boom, and hoses with clean water.
6. Dispose of the rinsate on a labeled site or at an approved waste disposal facility. If a commercial cleaner is used follow the directions for rinsate disposal on the label.

### Notes:

1. **Caution: DO NOT** use chlorine bleach with ammonia as dangerous gases will form. **DO NOT** clean equipment in an enclosed area.
2. Steam-cleaning aerial spray tanks is advised before performing the above cleanout procedure to facilitate the removal of any caked deposits.
3. When TOPPLE is tank mixed with other pesticides, all required cleanout procedures must be examined and the most rigorous procedure must be followed.

## AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, that it is configured properly, and that drift potential has been minimized.

Note: Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Read the specific crop use and application equipment instructions to determine if an air assisted field crop sprayer can be used.

## 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).

### **UPWIND SWATH DISPLACEMENT**

When applications are made with a crosswind the swath will be displaced downwind. An adjustment for swath displacement is made on the downwind edge of the application site by shifting the path of the application equipment upwind. Applicators must use ½ swath displacement upwind at the downwind edge of the field.

## **STORAGE AND DISPOSAL**

**DO NOT** contaminate water, food, or feed by storage or disposal.

**PESTICIDE STORAGE:** Store product in original container only.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product must 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, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. **DO NOT** burn, unless allowed by state and local ordinances. 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, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. **DO NOT** burn, unless allowed by state and local ordinances. 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. Clean container promptly after emptying the contents from this container into application equipment or mix tank and before final disposal using the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour, or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. 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 Plastic 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. **DO NOT** burn, unless allowed by state and local ordinances.

**Refillable Fiber Drums With Plastic Liners: Refillable container (fiber drum only). Refilling Fiber Drum:** Refill this fiber drum with TOPPLE containing sulfometuron-methyl and chlorsulfuron 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. **DO NOT** burn, unless allowed by state and local ordinances. 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. **DO NOT** burn, unless allowed by state and local ordinances.

## 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.

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