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***City of Dover, New Hampshire***  
OFFICE OF THE FINANCE DIRECTOR

March 1, 2023

**REQUEST FOR PROPOSAL #B23061**  
**Pavement & Curbside Weed Control Services**

You are cordially invited to submit a Proposal for **Pavement & Curbside Weed Control Services** in accordance with the attached specifications, terms and conditions. Prospective respondents are advised to read this information over carefully prior to submitting a proposal.

**Two (2) copies of the Proposal must be submitted in a sealed envelope, plainly marked:**

**RFP #B23061 – Pavement & Curbside Weed Control Services**  
**Purchasing/Finance Office**  
**City of Dover**  
**288 Central Ave 2<sup>nd</sup> Floor**  
**Dover, NH 03820**

All proposals must be received by **March 23 at 2:00 p.m. EST**

kkc  
Attachments

**IMPORTANT:**

In order to be notified by email for projects associated with your service, visit our web page, <http://www.dover.nh.gov/government/city-operations/finance/bids> proceed to BECOME A VENDOR and add your company to our vendor database (if you have not already done so).

**Contracted Services Code - 46 Landscaping Services**



**CITY OF DOVER**

## REQUEST FOR PROPOSAL

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### I. INTRODUCTION

The City of Dover, is seeking a qualified vendor to provide weed control services in Dover, NH for the summer of 2023. The City has prohibited use of any glyphosate-based herbicides, and has experimented with steam treatments, mechanical removal via street sweepers, and organic treatments augmented with crack & crevice filling utilizing polymeric sand. Based on prior experiences with steam, mechanical, and organic treatments, we have not found a solution that we feel is optimal. We continue to seek recommendations and proven alternatives.

The City is therefore requesting pricing for 3 possible options, as noted on the attached Bid Form. While glyphosate-based herbicides are now prohibited, we request pricing and recommendations for an alternative pre-emergent herbicide. We are also requesting pricing for possible mechanical means, such as weed-whacking, hand-pulling, burning, etc. A third option would be an organic (OMRI listed product), supplemented with possible crack & crevice filling, either with polymeric sand, or other option.

The City of Dover is seeking pricing for a one (1) year contract to the successful bidder for the 2023 summer season, and will consider the option to renew for each of two (2) subsequent seasons contingent upon satisfactory vendor performance, funding availability and mutually agreed-upon rates for said subsequent years services.

### II. GENERAL REQUIREMENTS

The City of Dover reserves the right to waive any formality, informality, information and/or errors in the proposals submitted and the right to reject any or all proposals at its discretion and to accept the proposal which will be in the best interest of the City; or to purchase on the open market if it is considered in the best interest of the City to do so.

Any questions or inquiries must be submitted in writing, and, in order to be considered, must be received by the Purchasing Agent ([k.cragin@dover.nh.gov](mailto:k.cragin@dover.nh.gov)) no later than seven (7) calendar days before the Request for Proposals due date and time. Any changes to the Request for Proposals will be provided to all Proposers of record.

No Late, Emailed or Faxed proposals will be accepted.

### III. PROJECT REQUIREMENTS

The curbside weed control program includes the control of unsightly and damaging pavement weeds. Weeds reduce the life expectancy of sidewalks by allowing water into the sub-grade eventually resulting in increased erosion and frost heaving. Weeds also, when wet, are slippery and a hazard to pedestrians.



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The City focused on approximately 33 miles of streets for weed control services during the months of May thru October. See Attachment C-Street List of Areas and Attachment D-Map of Areas. Included are parking lots that also require pavement weed control.

The preferred vendors will provide pricing options for (at least **two**) of the following options:

- a) Proven herbicide labelled for use on pavement surfaces, no glyphosate-based materials allowed. Vendor should provide pesticide label and SDS or technical data regarding the proposed product, including application rates, timing, and number of treatments. Also include a list of at least 3 other municipal entities that have successfully utilized the recommended product.
- b) Mechanical removal, or an alternative treatment/method that avoids the use of EPA regulated materials. Examples might be weed-whacking, hand-pulling, specialized mechanical sweepers, burning, CO2 use and/or liquid nitrogen applications. Please provide specific information on the proposed alternative, including anticipated progress and speed of treatment. Vendor will be responsible for any safety-related means, such as flaggers or tending-vehicles. Proposal costs should reflect such efforts.
- c) Organic and/or integrated pest management techniques. Organic treatment products must be OMRI-Listed, and include technical data and proposed number of treatments. In addition to the application of organic products, a separate optional line item will be included for possible inclusion of crack & crevice filling. Pricing will be requested on a per-100 foot linear distance, with perhaps 1 to 3 miles considered for application, depending on bid pricing. For both the organic herbicide and the optional crack & crevice filling, please include a list of at least 3 other municipal entities that have successfully implemented a similar program.

The City is anticipating a budgetary expenditure not to exceed \$60,000 for the 2023 calendar season. The final selected option may not be based solely on cost, and will need to be reviewed and approved by the Dover City Council, in accordance with its commitment to organic land management practices.

**The City of Dover requires from bidders, a special state permit for weed control spraying services from the NH Division of Pesticides Control and that all applicators are properly licensed. Awarded vendor will be required to show proof of compliance. The number of licensed applicators may be an important factor in determining an appropriate contractor. Vendor must adhere to all requirements as outlined in the New Hampshire Department of Agriculture, Markets and Food Special Permit including advanced notifications.**



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### SCHEDULING OF WORK

The vendor's recommended weed control program should include a projected schedule for applications and frequency. This will include treatments application to thirty-three miles of Dover street sidewalks and parking lots. Traffic and pedestrian safety must be adhered to at all times.

Vendor **must** schedule work with Sharon Sirois, Superintendent of Facilities, Grounds & Cemeteries @ 603-516-6480 or @ 145 Court Street, Dover, NH at least 48 hours prior to beginning work and must provide list of streets completed each day.

### IV. INFORMATION AVAILABLE

- Attachment A: Terms and Conditions
- Attachment B: City of Dover Sample Agreement
- Attachment C: Street List of Areas
- Attachment D: Map of Areas

### V. TIMELINE

Vendor shall provide timeframe for review and consideration, as the City expects to complete weed control activities during the months of May thru October.

### VI. SUBMITTAL REQUIREMENTS (any missing items may result in rejection of the proposal)

#### Statement of Project Requirements

State in succinct terms the vendors understanding of what is required by this Request for Proposal. The vendor shall demonstrate their knowledge of the project by documenting design and construction issues associated with this Project.

#### Scope of Services

Describe in narrative form the vendors approach and list of equipment used for accomplishing the work listed herein. Submit a schedule for completing the scope of work outlining the anticipated time frames and durations for the various services specified in the project approach.

#### Firm

Information on the firm shall be provided. Such information shall elaborate on the firm's size, areas of specialization, and list current projects underway. Provide similar information on all subcontractors that will be utilized.



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**Team**

Include a Project Team and Organization Chart of all individuals who will be assigned to work on this project. Also, list any proposed sub-consultants and their intended scope of work.

**Costs**

Please provide an itemized and detailed cost proposal, as well as a product listing for consideration for the 2023 summer season with the understanding that there may be modifications based on conditions each year.

**PRICING: Option A**

Fees for requested pre-emergent herbicide services (Non glyphosate): for Complete Weed Control – all crack and crevice pavement weeds.

Annual lump sum \$ 45,978.00 for 33+/- miles.

Provide detailed information recommended product(s) (SDS Sheets), dosing, frequency, etc. and any other pertinent information for this recommended in application.

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See attached supplemental information page included with this RFP for details.

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**PRICING: Option B**

Fees for requested services (mechanical/alternative): for Complete Weed Control – all crack and crevice pavement weeds

Per treatment round \$ N/A for 33+/- miles x N/A recommended number of applications = \$ N/A annual total. Vendor needs to determine how many treatments are recommended and City will use information in assessing viability of alternative.

Provide detailed information on ALL the product(s) (SDS Sheets) AND method, including frequency of treatments, being used in application.

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No bid is being presented for option B.

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## PRICING: Option C

Fees for requested services (organic-based alternative): for Complete Weed Control – all crack and crevice pavement weeds.

Per treatment round \$ 6,995.00 for 33+/- miles x 8 recommended number of applications = \$ 55,960.00 annual total. Vendor needs to determine how many treatments are recommended and City will use information in assessing viability of alternative.

Provide detailed information ALL on the product (MSDS Sheets) AND method being used in application.

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See attached supplemental information page included with this RFP for details.

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## Possible Additive Alternative C.1

Crack & crevice filling. Depending on pricing and budgetary impacts, the City may elect to continue selective crack & crevice filling using polymeric sand, or other proven product.

Per 100 linear feet \$ 49.25 City may target 1 to 3 miles, depending on pricing

Provide detailed information on ALL the product (SDS Sheets) AND method being used in application.

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Cracks and cevices that can support weeds will be prepared (cleaned) by hand. Polymeric sand will be applied to the cracks and watered. Once dry the cracks will be sealed indefinitely.

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### **For all alternatives:**

Please list % increase, if any, in the cost proposal for possible second and third year terms.

% of increase, if any, Year 2 3 %                      % of increase, if any, Year 3 3 %



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### **Commitments**

Provide a discussion of how the vendor will assure adequate and timely completion of this project. Submit a description of the vendor's overall capability, resources and assurance that it can meet its commitment to successfully complete this project within the specified time frame.

### **References**

Recent names and phone number information must be provided for at least three (3) other customers for whom these types of services have been successfully provided.

### **Insurance**

The successful vendor will be required to maintain and submit a certificate of insurance naming the City of Dover as additional insured for the duration of the project. Please see Attachment A for minimum limits and additional information.

### **Exclude and Preclude Russian-Related Purchases**

The City shall only purchase from, and or enter agreement with, vendors or suppliers who can, and are willing to, certify that (i) their products do not contain materials or components manufactured by companies, entities, or businesses located in Russia and (ii) that the vendor or supplier is not owned wholly or in part by the Russian government, a Russian agency or political subdivision, a Russian-owned company, a Russian-owned entity, a Russian state enterprise, a Russian-owned business located in Russia, or any other Russian-owned or Russian-controlled interests or subsidiary located in Russia. By responding to this proposal, the vendor and or supplier is providing an affirmative certification to these terms.

### **Other**

The City of Dover supports the concept of purchasing products that are biodegradable, can be or have been recycled, or are environmentally sound. Due consideration will be given to the purchase of such products. If you are bidding on any such products which qualify, please so indicate in a cover sheet by item number and description.

## **VII. SELECTION**

Vendor selection will include, but are not limited to the following:

- Firm's qualifications
- Experience of the firm and individuals on similar projects
- Qualifications of subcontractors/sub-consultants
- Understanding of the Project Scope
- Approach for completing the Work
- References from like work experiences
- Proposal Costs
- Commitment to Project timeline
- Any other criteria determined appropriate by the City



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**CONTACT INFORMATION: Proposer must complete the following:** By signing this proposal form you are attesting to your awareness and agreement with proposal terms and conditions. I certify that I am authorized to sign this form for the Proposer.

<b>Official Entity Name</b>	Municipal Pest Management Services, Inc	<b>FOB Information:</b>	Dover NH
<b>Address:</b>	21 River Road		
<b>City, State, Zip</b>	Newington, NH 03801		
<b>Email address:</b>	mummichog@comcast.net	<b>State of Incorporation</b>	NH
<b>Date:</b>	March 22, 2023	<b>SSN or EIN:</b>	01-0494245
<b>Telephone #:</b>	(603) 431-0008	<b>Fax #:</b>	
<b>Signature:</b>	<i>Michael Morrison</i>	<b>Title:</b>	President

*We, the undersigned have declined to submit a proposal for:*

- Insufficient time to respond*
- We do not offer this product or service*
- Our schedule would not permit us to perform*
- Unable to meet specifications*
- Unable to meet bond requirements*
- Unable to meet insurance requirements*
- Specifications too stringent (explain below)*
- Other*

*NO BID*



# Municipal Pest Management Services, Inc.

21 River Road  
Newington, NH 03801  
[swampfixer@swamp-inc.com](mailto:swampfixer@swamp-inc.com)  
Telephone 603-431-0008

**City of Dover, NH**  
**Request for Proposal #B23061**  
**Pavement and Curbside Weed Control Services**  
**March 1, 2023**

## **Supplemental Bid Information**

### **Firm Information**

Municipal Pest Management Services, Inc (MPMS) has been in business since 1985 and specializes in municipal weed control programs. Michael Morrison, owner, is a degreed Entomologist with 40 years of experience with pesticide and non- pesticide control of pavement weeds. MPMS currently has weed control programs in Maine, NH and Mass which includes eighteen cities and towns. Michael Morrison is licensed with NH Pesticide Control for completing weed control as well as six other employees. License renewals are pending but will be in place before work is completed.

Our Project team consist of Michael Morrison, Supervisor; Ky Bailey will be the Foreman and five applicators.

In 2022, A large scale project was completed in Manchester, NH. A pre- emergent herbicide (Esplenade 200 SC) was applied to over a forty miles of sidewalks prior to weed emergence in early June. The application rate was 0.2 ounces per gallon of spray. Only cracks and crevice were sprayed. Weeds were not present on 97% of the sidewalks for the remainder of the season. There were no ugly dead weeds and only touch up applications were completed for the rest of the season.

There will be no subcontractors with this project.

### **Scope of Services**

MPMS utilizes small utility vehicles capable of working on sidewalks. Each vehicle is equipped with battery powered sprayers. Each vehicle can carry two applicators.

### **Statement of Project Requirements**

MPMS understands what is required for this RFP. MPMS is constantly trying new techniques and herbicides to effectively control weeds in an environmentally- friendly manner.

# Municipal Pest Management Services, Inc.

21 River Road  
Newington, NH 03801  
[swampfixer@swamp-inc.com](mailto:swampfixer@swamp-inc.com)  
Telephone 603-431-0008

## **Option A- Pre-emergent Herbicide**

Esplenade Herbicide 200 SC will be applied initially in April/ May 2023 before weed emergence in early June 2023. Esplenade will be applied at 0.2 ounces per gallon. Esplenade has a sticking agent that prevents movement in the soil. Esplenade does not stain pavements and has no odor. Secondary (mop up) applications will be completed monthly in June, July, August, September and early October to all designated areas, as needed. Finalsans Herbicidal soap (organic herbicide) will be used for secondary treatments.

## **Option C- Organic Based Alternative**

Finalsans Herbicidal Soap is an organic herbicide (OMRI Certified) that quickly eliminates weed top growth. It is not active in the soil and, therefore, needs to be re-applied every three weeks during the growing season. This alternative will include eight applications in 2023 to sidewalk weeds. This schedule ensures that seedling weeds will be controlled and no large or tall weeds will be present throughout the growing season (June through October). Eight Finalsans applications will be completed and start on the following 2023 dates- May 23, June 12, July 5, July 24, August 14, September 5, September 25, October 16.

## **Alternative C.1 Crack and Crevice Filling**

Crack and crevice filling is labor intensive. Crack and crevices must be prepared for filling. Polymeric sand is then applied to cracks and watered thoroughly. The sand hardens within 24 hours. The filling material lasts for years and prevents weed growth indefinitely.

## **Commitments**

MPMS has seven licensed applicators and four utility vehicles and is located in nearby Newington, NH. MPMS has completed weed control in Dover since the 1990's and is capable of completing applications quickly and efficiently. Michael Morrison, owner, will be onsite and directly supervise spray applications. No glyphosate herbicides will be utilized as part of this proposal.

## **References (3)**

1. **Town of York, Maine DPW**  
Dean Lessard, Director  
[dlessard@yorkmaine.org](mailto:dlessard@yorkmaine.org)

# Municipal Pest Management Services, Inc.

21 River Road  
Newington, NH 03801  
[swampfixer@swamp-inc.com](mailto:swampfixer@swamp-inc.com)  
Telephone 603-431-0008

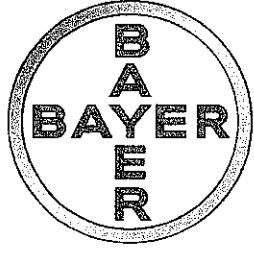
Phone: 207-363-1010 ext. 6201

**Both Esplenade 200 SC Herbicide and Finalsan Herbicidal Soap used in 2022**

2. **City of Manchester, NH DPW**  
**Parks, Recreation and Cemetery Division**  
**Kelly Koetsier, Parks Operation Manager**  
[kkoetsier@manchesternh.gov](mailto:kkoetsier@manchesternh.gov)  
**Phone: 603-657-0446**  
**Both Esplenade 200 SC Herbicide and Finalsan Herbicidal Soap used in 2022**
  
3. **City of Lewiston, Maine DPW**  
**Steve Murch, City Arborist**  
[smurch@lewistonmaine.gov](mailto:smurch@lewistonmaine.gov)  
**Phone: 207-513-3003 ext. 3443**  
**Both Esplenade 200 SC Herbicide and Finalsan Herbicidal Soap used in 2022**

**END**

Michael Morrison, Owner/ President  
Municipal Pest Management Services, Inc.  
Cell 603-231-1271



# EsplAnade<sup>®</sup> 200 SC

Preemergent Herbicide for the Control of Annual Grasses and Broadleaf Weeds in Non-Residential Non-Crop Areas, Railroad and Rail Yards, Managed Roadsides, Fence Rows, Utilities, Hardscapes, Industrial, Municipal, and Government Sites, and for the Release or Restoration of Desirable Vegetation in Parks and Open Space, Wildlife Management Areas, Recreational Areas, Fire Rehabilitation Areas, Prairies and Fire breaks.

**ACTIVE INGREDIENT:**  
 Indaziflam (CAS No. 730979-19-8) ..... 19.05%  
**OTHER INGREDIENTS:**..... 80.95%  
**TOTAL:**..... 100.00%

EPA Reg. No. 432-1516  
Contains 1.67 pounds of indaziflam per gallon

## KEEP OUT OF REACH OF CHILDREN CAUTION

For **MEDICAL** and **TRANSPORTATION** Emergencies **ONLY** Call 24 Hours A Day  
1-800-334-7577

For **PRODUCT USE** Information Call 1-800-331-2867

See Booklet for Complete Precautionary Statements and Directions for Use.

FIRST AID	
<b>If swallowed:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything to an unconscious person.</li> </ul>
<b>If on skin:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<p>For <b>MEDICAL</b> Emergencies Call 24 Hours A Day 1-800-334-7577            Have the product container or label with you when calling a poison control center or doctor or going for treatment.</p>	

Nonrefillable Container  
Net Contents  
**2.5 Gallons**  
80878486  
61380637B 160503AV1

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### CAUTION

Harmful if swallowed, absorbed through the skin or inhaled. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist. All mixers, loaders, applicators and other handlers must wear long-sleeved shirt, long pants, shoes plus socks, and waterproof gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using toilet. Remove and wash contaminated clothing before reuse.

#### ENVIRONMENTAL HAZARDS

This product is toxic to fish, aquatic invertebrates, and plants. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean watermark. Do not contaminate water when disposing of rinsate or washwater. This product may impact water through spray drift or runoff. Follow directions for use to avoid spray drift and runoff. A level well maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential of this product entering water from rainfall runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

**Ground Water Advisory:** This pesticide has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

**Surface Water Advisory:** This pesticide may impact water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a high potential for reaching surface water via runoff for several months or more after application.

#### DIRECTIONS FOR USE

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

**Read the entire label before using this product.**

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.

**SHAKE CONTAINER WELL BEFORE USING.**

#### PRODUCT INFORMATION

Esplanade® 200 SC is a selective, preemergent, alkylazine herbicide for control of many annual grasses and broadleaf weeds in railroad, roadside, hardscapes, industrial areas, utilities, airports, government and military installations, managed areas (petroleum tank farms, pumping stations, storage areas, rail and utility rights-of-way, utility substations, lumberyards, around farm buildings, non-irrigation ditch banks, fence rows, manufacturing sites, office buildings, educational facilities, parking lots, and under asphalt or concrete as part of site preparation).

Esplanade 200 SC may be used to release or re-establish desirable perennial grasses, forbs, shrubs and trees in non-crop areas such as parks and open space, wildlife management areas, recreational areas, fire rehabilitation areas, prairies and fire breaks.

Esplanade 200 SC controls weeds by reducing the emergence of seedlings through inhibition of cellulose biosynthesis (CB inhibitor). Necrosis or yellowing may also be observed if the herbicide is applied to herbaceous tissue such as leaves and green stems of susceptible plants. The herbicide needs to be activated prior to weed germination for most effective control. For maximum activity against germinating weeds, Esplanade 200 SC requires rainfall (minimum 0.25 inches) within several weeks after application to activate the herbicide.

Esplanade 200 SC has minimal post emergent activity and generally does not control weeds that have emerged. A post emergent herbicide such as Finale® Herbicide may be mixed with Esplanade 200 SC to control existing weeds. Esplanade 200 SC does not control tubers, rhizomes, and woody vegetation.

Esplanade 200 SC can be applied to terrestrial non-crop sites that contain areas of casual water of a temporary nature as a result of surface water collecting in equipment wheel ruts or in other depressions created by management activities.

Aerial applications of Esplanade 200 SC are allowed to release or re-establish desirable vegetation in non-crop areas such as parks and open space, wildlife management areas, recreational areas, fire rehabilitation areas, prairies, and fire breaks. For all other uses, only ground application is permitted.

#### USE RESTRICTIONS

- Do not apply directly to water or to soil where standing water is present except as specified on this label.
- Do not apply in or on irrigation ditches/canals including the outer banks.
- Do not contaminate water intended for irrigation and domestic use.
- Do not treat or allow spray drift or runoff to fall into irrigation ditches/canals or other channels that carry water that may be used for irrigation purposes.
- Do not exceed 7 fl oz per acre of Esplanade 200 SC in a single application for all Industrial Vegetation Management applications.
- Do not exceed 10 fl oz per acre of Esplanade 200 SC for all Industrial Vegetation Management applications within a calendar year or in a 12-month period from the previous application.
- Do not apply Esplanade 200 SC to newly seeded turf.
- Do not apply Esplanade 200 SC through an irrigation or chemigation system.
- Aerial applications are only allowed to release or re-establish desirable vegetation in non-crop areas such as parks and open space, wildlife management areas, recreational areas, fire rehabilitation areas, prairies, and fire breaks.
- Do not apply or otherwise permit this product or sprays containing this product to come into contact with any non-target crop or desirable plants.
- Do not make applications when circumstances favor movement from treatment sites.
- Do not apply to frozen or snow covered ground.
- Do not graze or feed forage, hay, or straw from treated areas to livestock.
- Do not use on residential lawns or commercial lawns, golf courses, sod farms, or production and landscape ornamentals.
- Esplanade 200 SC is not for sale, distribution, or use in Nassau County or Suffolk County in New York State.

#### USE PRECAUTIONS

- Applications made to areas where runoff water flows onto agricultural land may injure crops.
- Applications made during periods of intense rainfall, to soils saturated with water, or soils through which rainfall will not readily penetrate may result in runoff and movement of Esplanade 200 SC.
- Treated soil should be left undisturbed to reduce the potential for Esplanade 200 SC movement by soil erosion, by wind, or water.
- Applications should be made only when there is little or no risk of spray drift or movement of applied product into sensitive areas. Sensitive areas are defined as bodies of water (ponds, lakes, rivers, and streams), habitats of endangered species and non-labeled agricultural crop areas. Refer to the Spray Drift Management section of this label for more details.
- Avoid application to powdery, dry, light or sandy soil when there is little likelihood of rainfall soon after application. Injury to crops or desirable vegetation may result if treated soil is washed, blown, or moved into these areas.

#### APPLICATION INFORMATION

Apply Esplanade 200 SC with a properly calibrated sprayer according to the manufacturer's directions and check periodically to be certain that the equipment is working properly prior to each use. Uniform application is essential for satisfactory weed control. Avoid overlap. Shut off spray booms while starting, turning, slowing, or stopping to avoid off-target application.

When spraying close or next to ponds, lakes, rivers, and streams be cognizant of keeping the spray solution from reaching the water.

For all applications, follow these guidelines: use spray volumes of 10-100 gallons per acre, spray boom height and spray pressures as low as practical, use coarse droplet producing nozzle tips, use drift control additives and shielded sprayers where practical, and spray when wind speed is low. See the Spray Drift Management section for more details. The use of a hand-held or backpack sprayer is allowed, especially when treating smaller areas. The water volume and use rates are the same on a given area as if treating with a much larger boom sprayer. When using a hand-held or backpack sprayer, do not exceed the use rate restrictions stated on this label.

### MIXING INSTRUCTIONS

Ensure that the application equipment has been thoroughly cleaned from previous use before using to apply Esplanade 200 SC. Fill the spray tank with 1/2 of the required volume of water prior to the addition of Esplanade 200 SC. Add the proper amount of Esplanade 200 SC, and then add the rest of the water. Maintain sufficient agitation to ensure an adequate spray mixture during application. If Esplanade 200 SC is to be applied in a tank mixture with other pesticides, add the appropriate amounts of the tank mix partners in the following order: (a) products in water-soluble packaging (WSP), (b) WP, (c) WG or other dry flowables, (d) fertilizers, (e) Esplanade 200 SC, (f) other aqueous suspension products (SC), (g) soluble liquids, (h) emulsifiable concentrates and other organic-solvent based formulations. Continue to fill the tank with water to the desired volume while agitating. **Maintain sufficient agitation during application to ensure a uniform spray mixture.**

**Resuspending Esplanade 200 SC in Spray Solution:** Like other suspension concentrates (SC), Esplanade 200 SC will settle if left standing without agitation. Re-agitate the spray solution before application.

### COMPATIBILITY TESTING WITH OTHER PESTICIDES

A compatibility test must be conducted with any potential tank mix partner with Esplanade 200 SC. Using a clear container, conduct the test as described below:

Fill the container three-quarters full with water.

1. Add the appropriate amount of tank mix partner in the following order: (a) WP (b) dry flowable (c) Esplanade 200 SC (d) aqueous suspensions, (e) soluble liquids, (f) emulsifiable concentrates. Shake or gently stir after each addition to mix thoroughly.
2. After adding all ingredients, let the mixture stand for 15 minutes and look for separation, large flakes, precipitates, gels, and heavy oily film or other signs of incompatibility.
3. If the compatibility test shows signs of incompatibility, do not tank mix the product tested with Esplanade 200 SC.

### Vegetation Management Information

#### Timings, Use Rates, and Maximum Seasonal Rate for Esplanade 200 SC

Apply Esplanade 200 SC prior to weed seed germination. Esplanade 200 SC does not generally control weeds that have emerged. For maximum weed control, the herbicide needs to reach the soil surface and be activated by rainfall or adequate soil moisture. Apply Esplanade 200 SC in the spring for control of spring and summer germinating weeds and apply in the fall for control of winter weeds.

The desired rate of Esplanade 200 SC depends on the residual weed activity required and restrictions on the maximum amount of Esplanade 200 SC per season. Esplanade 200 SC may be applied at 3.5-7 fl oz per acre. Do not exceed 7 fl oz of Esplanade 200 SC for a single application. Applications of Esplanade 200 SC must not exceed the maximum label rate (10 fl oz per acre) in a 12-month period after the previous application.

Factors including soil type, rainfall, and the amount of vegetation at the time of treatment may affect weed control. Lower rates of Esplanade 200 SC may be effective for sandy soils, whereas organic soils may require higher rates. If the herbicide is not activated by rainfall prior to weed germination, control may be reduced.

For late fall applications, apply Esplanade 200 SC prior to when the ground freezes.

#### Tank Mix Combinations

Tank-mix combinations of Esplanade 200 SC plus a non-selective herbicide such as Finale® Herbicide or glyphosate will control existing undesirable vegetation in dormant warm season grasses. Applied as a broadcast spray, Esplanade 200 SC plus a non-selective herbicide such as Finale® Herbicide or glyphosate will provide pre and postemergent control of susceptible species listed on the respective labels of the herbicides in the tank mixture.

Esplanade 200 SC may be tank mixed with the following herbicide active ingredients but not limited to: 2,4-D, aminopyralid, bromacil, dicamba, flumioxazin, fosamine, glufosinate ammonium (Finale® Herbicide), glyphosate, hexazinone, metsulfuron, picloram, simazine, sulfometuron, and triclopyr.

Follow all use restrictions on this label and for all tank mix partners. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. Note the most restrictive language may come from different labels.

Apply mixtures so that the spray solution covers the soil surface in a uniform manner. If uniform coverage is not achieved, preemergent activity will be inconsistent.

Weeds Controlled or Suppressed by Esplanade 200SC			
<b>Broadleaf Weeds Controlled</b>			
American black nightshade	<i>Solanum americanum</i>	Lambsquarters, common	<i>Chenopodium album</i>
Bittercress	<i>Cardamine</i> sp.	Lawn burweed	<i>Siliva pterosperma</i>
California burclover	<i>Medicago polymorpha</i>	Little mallow	<i>Malva parviflora</i>
Canada thistle, common (seedlings)	<i>Cirsium arvense</i>	Long-stalk phyllanthus	<i>Phyllanthus tenellus</i>
Carpentweed	<i>Mollugo verticillata</i>	Panicum willowweed	<i>Epilobium paniculatum</i>
Chickweed, common	<i>Stellaria media</i>	Plantain, Buckhorn	<i>Plantago lanceolata</i>
Chickweed, Mouse-ear	<i>Cerastium vulgatum</i>	Plantain, Paleseed	<i>Plantago virginica</i>
Clover, White	<i>Trifolium repens</i>	Prostrate knotweed	<i>Polygonum aviculare</i>
Corn speedwell	<i>Veronica arvensis</i>	Prostrate pigweed	<i>Amaranthus blitoides</i>
Cudweed, Linear-leaf/purple	<i>Gnaphalium purpureum</i>	Prostrate spurge	<i>Euphorbia humifusa</i>
Curly dock (seedlings)	<i>Rumex crispus</i>	Puncturevine	<i>Tribulus terrestris</i>
Cutleaf evening primrose	<i>Oenothera laciniata</i>	Purslane, common	<i>Portulaca oleracea</i>
Dandelion, cat's ear	<i>Hypochoeris radicata</i>	Ragweed, common	<i>Ambrosia artemisiifolia</i>
Dandelion, common (seedlings)	<i>Taraxacum officinale</i>	Red tasselflower	<i>Emilia sonchifolia</i>
Doveweed	<i>Murdannia nudiflora</i>	Redmaids	<i>Calandrinia caulescens</i>
Eclipta	<i>Eclipta alba</i>	Redroot pigweed	<i>Amaranthus retroflexus</i>
Evening primrose, common	<i>Oenothera biennis</i>	Redstem fleabane/Storks-bill	<i>Erodium cicutarium</i>
Evening primrose, cutleaf	<i>Oenothera laciniata</i>	Russian Thistle	<i>Salsola tragus</i>
Filaree, redstem	<i>Erodium cicutarium</i>	Shepherd's-purse	<i>Capsella bursa-pastoris</i>
Fleabane, blackleaved	<i>Conza bonariensis</i>	Sowthistle, annual	<i>Sonchus olerachus</i>
Florida pusley	<i>Richardia scabra</i>	Spotted catsear	<i>Hypochoeris radica</i>
Gromwell, Yellow	<i>Amsinckia calycina</i>	Swinecress	<i>Coronopus didymus</i>
Groundsel, common	<i>Senecio vulgaris</i>	Tropic ageratum	<i>Ageratum conyzoides</i>
Hairy fleabane	<i>Erigeron bonariensis</i>	Velvetleaf	<i>Abutilon theophrasti</i>
Hairy nightshade	<i>Solanum sarrachoides</i>	Wild buckwheat (seedlings)	<i>Polygonum convolvulus</i>
Henbit	<i>Lamium amplexicaule</i>	Wild mustard	<i>Sinapis arvensis</i>
Horseweed/Marestail	<i>Erigeron canadensis</i>	Yellow starthistle	<i>Centaurea solstitialis</i>
Kochia	<i>Kochia scoparia</i>		

(continued)

**Weeds Controlled or Suppressed by Esplanade 200SC (continued)**

<b>Grasses and Sedges Controlled</b>			
Annual bluegrass	<i>Poa annua</i>	Goosegrass	<i>Eleusine indica</i>
Annual bromegrass	<i>Bromus</i> spp.	Guineagrass	<i>Panicum maximum</i>
Barnyardgrass, common	<i>Echinochloa crus-galli</i>	Medusahead	<i>Taeniatherum caput-medusae</i>
Cheatgrass	<i>Bromus secalinus</i>	Mouse barley	<i>Hordeum murinum</i>
Crabgrass	<i>Digitaria</i> species	Rice flatsedge	<i>Cyperus iria</i>
Crabgrass, Henry	<i>Digitaria adscendens</i>	Rye, Feral	<i>Secale cereale</i>
Crabgrass, Large/Hairy	<i>Digitaria sanguinalis</i>	Ryegrass, Italian	<i>Lolium multiflorum</i>
Crabgrass, Smooth	<i>Digitaria ischaemum</i>	Ryegrass, Perennial	<i>Lolium perenne</i>
Downy brome	<i>Bromus tectorum</i>	Sandbur	<i>Cenchrus longispinus</i>
Foxtail brome	<i>Bromus rubens</i>	Sedge, annual	<i>Cyperus</i> spp.
Foxtail, Giant	<i>Setaria faberi</i>	Sprangletop	<i>Leptochloa</i> spp.
Foxtail, Green	<i>Setaria viridis</i>	Tufted lovegrass	<i>Eragrostis pectinacea</i>
Foxtail, Yellow	<i>Pennisetum glaucum</i>		
<b>Weeds Suppressed</b>			
Black medic	<i>Medicago lupulina</i>	Southern brassbuttons	<i>Cotula australis</i>
Black mustard	<i>Brassica nigra</i>	Sunflower, common	<i>Helianthus</i> spp.
False chamomile	<i>Matricaria maritima</i>	Vetch, purple	<i>Vicia benghalensis</i>
London rocket	<i>Sisymbrium irio</i>	Wild carrot	<i>Daucus carota</i>
Prickly lettuce	<i>Lactuca serriola</i>	Woodsorrell, yellow	<i>Oxalis stricta</i>
Sesbania, hemp	<i>Sesbania exaltata</i>	Woodsorrell/Oxalis	<i>Oxalis</i> species
Sida, prickly/teaweed	<i>Sida spinosa</i>		

<b>Use Sites for Esplanade 200 SC</b>	<b>Rate Range (fl oz/A)</b>	<b>Maximum Single Use Rate (fl oz/A)</b>	<b>Maximum Total Yearly Rate (fl oz/A)</b>
Rail and Rail Yards	3.5*-7	7	10
Managed Roadsides	3.5-7	7	10
Warm Season Turf Release	3.5-5	5	10
Restoration or release of desirable vegetation	3.5**-7	7	10
All other use sites listed	3.5-7	7	10

\*In Rail and Rail yard use sites, the 3.5 oz rate of Esplanade 200 SC should only be applied under low weed pressure in combination with another approved herbicide. This rate is not intended for stand-alone treatments.

\*\*The 3.5 fl oz rate of Esplanade 200 SC should only be applied under low weed pressure when less preemergence residual control is desired.

**Bareground Applications for Non-Residential Non-Crop Sites**

**Bareground** is desired at many non-crop sites for reducing fire hazards, maintaining appropriate lines-of-site, and aesthetic considerations. Examples of sites include but are not limited to guardrails and some median strips near highways, hardscapes, parks, airports, utilities, government and military installations, around farm buildings, manufacturing sites, office buildings, educational facilities, parking lots, and managed areas. Esplanade 200 SC may be used alone for residual weed control or in tank mixture. Tank mixtures with post emergent herbicides help to control existing weeds. Observe use restrictions for all herbicides if a tank mixture is applied. Use-rates for bareground applications depend on the duration of weed control desired and the weed species listed on this label. Apply Esplanade 200 SC at 5-7 fl oz per acre. A repeat application can be made but not to exceed a total amount of 10 fl oz per acre per year.

**Restriction:** Applications to hardscapes (e.g. patios, paved parking lots, and walkways) may be made by spot application only.

**Railroads and Rail Yards**

Esplanade 200 SC may be used for preemergent residual control of certain weeds near railroad tracks, ballasts, and rail yards. Follow application instructions under **Bareground Applications** where bareground is the desired result. In situations where warm season turfgrass coverage is desired, such as at railroad crossings, follow use directions under the **Warm Season Turf Release** section of this label. Apply Esplanade 200 SC at 5-7 fl oz per acre. A repeat application can be made but not to exceed a total amount of 10 fl oz per acre per year.

**Warm Season Turf Release**

Esplanade 200 SC may be used to promote the growth of warm season grasses in areas where low maintenance vegetation or erosion control is desired. Established bermudagrass (*Cynodon dactylon*), centipedegrass (*Eremochloa ophiuroides*), bahiagrass (*Paspalum notatum*), buffalograss (*Buchloe dactyloides*), and Zoysiagrass (*Zoysia* spp.) are tolerant to Esplanade 200 SC at rates up to 5 fl oz per acre. Application of Esplanade 200 SC in the spring or fall to these grasses will control labeled weeds and allow low maintenance turf to develop. A repeat application can be made but not to exceed a total amount of 10 fl oz per acre per year. Cool season grasses such as Kentucky bluegrass (*Poa pratensis*), perennial ryegrass (*Lolium perenne*), and fescues (*Festuca* sp) are not tolerant to Esplanade 200 SC. Use Esplanade 200 SC on these grasses only when removal of these grasses is desired.

Esplanade 200 SC can inhibit the emergence of seed and damage newly emerged seedlings. Seeding into turf treated with Esplanade 200 SC should be delayed until at least **8 months** after application. Applications to newly seeded turf made sooner than **8 months** after emergence may significantly reduce stand establishment and turf vigor.

**Release or Restoration of Desirable Vegetation**

Esplanade 200 SC may be used to release or re-establish desirable perennial grasses, forbs, shrubs and trees in non-crop areas such as parks and open space, wildlife management areas, recreational areas, fire rehabilitation areas, prairies and fire breaks.

**Application Timings and Rates**

Apply Esplanade 200 SC at 3.5 to 7 fl oz per acre. The 3.5 fl oz rate of Esplanade 200 SC should only be applied under low weed pressure when less preemergence residual control is desired. For the best residual control, apply Esplanade 200 SC at 5 to 7 fl oz per acre.

Esplanade 200 SC may be applied by ground or aerial equipment (helicopter or fixed wing).

Timing of application is determined by precipitation expectation and weed targets. Apply during periods when sufficient precipitation to activate the herbicide is expected prior to target weed germination, but avoid application if heavy rain is expected which can move treated soil into areas with crops or desirable vegetation.

Esplanade 200 SC has minimal post emergent activity and generally does not control weeds that have emerged. A labeled post emergent herbicide may be mixed with Esplanade 200 SC to control existing weeds. Refer to "Tank Mix Combinations" section for specific tank mix instructions.

**Low rainfall areas of the West:** Apply in the fall, winter, or spring. Esplanade 200 SC will not control winter annuals that have emerged at the time of application or that emerge prior to activating rainfall. A post emergence tank mix partner is needed to control winter annuals that have emerged at the time of application. Susceptible winter annual weeds that have emerged and escape the post emergence herbicide may be controlled preemergence the following season depending on the rate of Esplanade 200 SC used. Esplanade 200 SC at the highest labeled rate may provide several years of residual preemergence control of winter annual grasses such as downy brome, cheatgrass, feral ryegrass, and medusahead.

**High rainfall areas of the East:** Apply in the fall to control winter annual weeds or apply in the spring to control spring and summer germinating weeds. A tank mix partner is needed to control weeds that have emerged at the time of application. Established perennial grasses that are tolerant to Esplanade 200 SC:

The following tables list species that have demonstrated tolerance to Esplanade 200 SC. When treating areas with desirable species not listed in the tables, treat a small area to confirm tolerance prior to large scale use.

Cool Season Grasses	Warm Season Grasses
Crested Wheatgrass ( <i>Agropyron cristatum</i> ) Green Needlegrass ( <i>Nassella viridula</i> ) Intermediate Wheatgrass ( <i>Thinopyrum intermedium</i> ) Needle-and-thread ( <i>Hesperostipa comata</i> ) Prairie Junegrass ( <i>Koeleria macrantha</i> ) Streambank Wheatgrass ( <i>Elymus lanceolatus</i> ) Western Wheatgrass ( <i>Pascopyrum smithii</i> )	Blue Grama ( <i>Bouteloua gracilis</i> ) Sand Dropseed ( <i>Sporobolus cryptandrus</i> )

Established forbs and shrubs that are tolerant to Esplanade 200 SC:

Forbs and Shrubs	
Broom groundsel ( <i>Senecio spartioides</i> ) Fringed Sage ( <i>Artemisia frigida</i> ) Lemon Scurfpea ( <i>Psoraleidum lanceolatum</i> ) Louisiana Sage ( <i>Artemisia ludoviciana</i> ) Prickly Pear ( <i>Opuntia</i> ) Porter's aster ( <i>Symphotrichum porteri</i> )	Scarlet globemallow ( <i>Sphaeralcea coccinea</i> ) Short's milkvetch ( <i>Astragalus shortianus</i> ) Sulphur Flower ( <i>Eriogonum umbellatum</i> ) Western Ragweed ( <i>Ambrosia psilostachya</i> ) Wild Tarragon ( <i>Artemisia dracunculul</i> )

**Use Restrictions:**

Do not apply to frozen or snow covered ground.

Do not graze or feed forage, hay, or straw from treated areas to livestock.

**Precautions:**

Avoid application to powdery, dry, light or sandy soil when there is little likelihood of rainfall soon after application. Injury to crops or desirable vegetation may result if treated soil is washed, blown, or mowed into these areas.

If planning to plant desirable species in the treated area, avoid planting for at least eight months after application. A field bioassay must then be completed before planting. To conduct a field bioassay, grow to maturity test strips of the species you plan to plant. The test strips should cross the entire area including knolls and low areas. Response to the field bioassay will indicate whether or not to plant the species grown in the test strips. If no injury (such as poor germination, stunting, chlorosis, malformation, or necrosis) the species grown in the test strips may be planted.

**Aerial Use Directions (Release or Restoration of Desirable Vegetation)**

For aerial application (helicopter and fixed wing aircraft), use 5-30 gallons of spray volume per acre.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops.

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward, parallel with the air stream and never be pointed downwards more than 45 degrees.
3. All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

Where states have more stringent regulations, they must be observed. The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

For helicopters, use a boom length and position that prevents the spray from entering the rotor vortices, normally accomplished by a spray boom length that does not exceed the rotor diameter.

Set the boom and make applications at the lowest height that safely permits uniform coverage of the soil and minimizes droplet evaporation. Avoid application if wind conditions are gusty. Local terrain may influence wind patterns; the applicator should be familiar with local conditions and understand how they may impact spray drift. Boom or nozzle shielding can reduce the effects of wind or air currents on drift. Verify that the shields do not interfere with uniform deposition of product prior to application.

**Resistance Management Guidelines**

Continual use of herbicides with a single mode of action encourages the development of resistant weeds. Esplanade 200 SC is a Group 29 Herbicide that contains the active ingredient indaziflam. Esplanade 200 SC may be used in programs with other preemergence herbicides with different modes of action. No known resistance to Esplanade 200 SC exists, and there are no known instances of cross-resistance between this product and other classes of herbicides, or modes of action. Performance of this product is not affected by the presence of biotypes resistant to glyphosate, triazines, ALS-inhibiting, growth regulant, or other herbicide modes of action. When resistance of a specific weed is confirmed, rotation of Esplanade 200 SC in one season followed by a preemergent herbicide with another mode of action in the subsequent season, for example, will reduce existing populations and minimize further development of resistant weeds. Contact a Bayer Environmental Sciences representative for the latest information on resistance management guidelines for this product.

**Spray Drift Management**

Spray equipment and weather affect spray drift. Consider all factors when making application decisions. Where states have more stringent regulations, they must be observed. Avoiding spray drift is the responsibility of the applicator. To reduce the potential for drift, the ground application equipment must be set to apply coarse or greater droplets (i.e., ASABE Standard 572.1) with corresponding spray pressure. Use high flow rate nozzles to apply the highest practical spray volume. With most nozzle types, narrower spray angles produce larger droplets. Follow the nozzle manufacturer's directions on pressure, orientation, spray volume, etc., in order to minimize drift and optimize coverage and control.

**Sensitive Areas**

Sensitive areas are defined as bodies of water (ponds, lakes, rivers, and streams), wetlands, habitats of endangered species and non-labeled agricultural crop areas. Applicators must take all precautions necessary to keep spray drift from reaching sensitive areas. Only apply this product when the potential for drift to adjacent sensitive areas is minimal (e.g. when wind is blowing away from the sensitive areas). The applicator is responsible for considering all these factors when making decisions. Do not apply under circumstances where possible drift to unprotected persons, food, forage, or other plantings that might be damaged, as crops thereof may be rendered unfit for sale, use, or consumption.



### Wind

Avoid making applications when spray particles may be carried by air currents to areas where sensitive crops and plants are growing. Many factors influence spray drift potential including droplet size, equipment type, and local terrain. Drift potential increases if wind is in excess of 10 mph, gusty, or below 2 mph (due to inversion potential). Always make applications when there is some air movement to determine the direction and distance of possible spray drift. The applicator should be familiar with local conditions and how it may influence spray drift.

### Temperature Inversion

A surface temperature inversion (i.e., increasing temperature with increasing altitude) greatly increases the potential for drift. Avoid application when conditions are favorable to inversion. Presence of ground fog is a good indicator of a surface temperature inversion.

### Controlling Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that still provide sufficient coverage and control. Uniform spray coverage is important to maximize weed control. Applying larger droplets will reduce drift potential, but will not prevent drift if applications are made improperly or under unfavorable environmental conditions such as wind speed, temperature and humidity, and temperature inversion situations.

Spray volume, pressure, and nozzle selection are all important for reducing drift. Select a high flow rate nozzle to apply the highest practical spray volume. High flow rate nozzles produce larger droplets. Use lower spray pressures within the recommended range for the nozzle. If a higher flow rate is needed, increase the nozzle size instead of increasing pressure. Lower spray pressures produce larger droplets. Also, consider using low-drift nozzles.

Set the boom and make applications at the lowest height that safely permits uniform coverage of the soil and minimizes droplet evaporation. Avoid application if wind conditions are gusty. Local terrain may influence wind patterns. The applicator should be familiar with local conditions and understand how they may impact spray drift.

### Drift Control Additive

Drift control additive may also be used with most spray equipment to reduce the potential for drift. When using a drift control additive, read and follow all directions on the additive label.

### Shielded Sprayers

Shielding the boom or individual nozzles may also reduce the potential for drift. However, it is the responsibility of the applicator to verify that the shield does not interfere with uniform spray coverage.

## STORAGE AND DISPOSAL

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

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

**Pesticide Disposal:** Waste 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" designation.

### Rigid, Non-refillable containers small enough to shake (i.e., with capacities equal to or less than 5 gallons)

Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning 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.

### Rigid Non-refillable containers that are too large to shake (i.e., with capacities greater than 5 gallons or 50 pounds)

Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. 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 offer for recycling or reconditioning 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.

Do not transport if 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 BAYER CROPSCIENCE LP at 1-800-334-7577, day or night.

## IMPORTANT: READ BEFORE USE

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. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Bayer CropScience LP. All such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience LP is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

**LIMITATIONS OF LIABILITY:** TO THE EXTENT CONSISTENT WITH APPLICABLE LAW THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE LP'S ELECTION, THE REPLACEMENT OF PRODUCT.

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Produced for:  
Bayer Environmental Science  
A Division of Bayer CropScience LP  
2 T. W. Alexander Drive  
Research Triangle Park, NC 27709

Bayer



# EsplAnade® 200 SC

Preemergent Herbicide for the Control of Annual Grasses and Broadleaf Weeds in Non-Residential Non-Crop Areas, Railroad and Rail Yards, Managed Roadsides, Fence Rows, Utilities, Hardscapes, Industrial, Municipal, and Government Sites, and for the Release or Restoration of Desirable Vegetation in Parks and Open Space, Wildlife Management Areas, Recreational Areas, Fire Rehabilitation Areas, Prairies and Fire breaks.

**ACTIVE INGREDIENT:**  
Indaziflam (CAS No: 730979-19-8) ..... 19.05%  
**OTHER INGREDIENTS:** ..... 80.95%  
**TOTAL:** ..... 100.00%

EPA Reg. No. 432-1516  
Contains 1.67 pounds of indaziflam per gallon

**KEEP OUT OF REACH  
OF CHILDREN  
CAUTION**

For **MEDICAL** and **TRANSPORTATION** Emergencies  
**ONLY Call 24 Hours A Day 1-800-334-7577**  
For **PRODUCT USE** Information Call 1-800-331-2867  
See Booklet for Complete Precautionary Statements and  
Directions for Use.

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND  
DOMESTIC ANIMALS  
CAUTION**

Harmful if swallowed, absorbed through the skin or inhaled. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist! All mixers, loaders, applicators and other handlers must wear long-sleeved shirt, long pants, shoes plus socks, and waterproof gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using toilet. Remove and wash contaminated clothing before reuse.

**ENVIRONMENTAL HAZARDS**

This product is toxic to fish, aquatic invertebrates, and plants. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean watermark. Do not contaminate water when disposing of rinsate or washwater. This product may impact water through spray drift or runoff. Follow directions for use to avoid spray drift and runoff. A level well maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential of this product entering water from rainfall runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

**Ground Water Advisory:** This pesticide has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

**Surface Water Advisory:** This pesticide may impact water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a high potential for reaching surface water via runoff for several months or more after application.

**FIRST AID**

<b>If swallowed:</b>	<ul style="list-style-type: none"> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Do not give anything to an unconscious person.</li> </ul>
<b>If on skin:</b>	<ul style="list-style-type: none"> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>

For **MEDICAL** Emergencies Call 24 Hours A Day  
**1-800-334-7577**  
Have the product container or label with you when calling a  
poison control center or doctor or going for treatment.

**STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage and disposal.  
**Pesticide Storage:** Store product in original container only. Store in cool, dry place.

**Pesticide Disposal:** Waste 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" designation.

Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning 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.



Nonrefillable Container  
Net Contents  
**2.5 Gallons**  
80878486  
61380637B 160503AV1

Bayer

Produced for:  
Bayer Environmental Science  
A Division of Bayer CropScience LP  
2 T. W. Alexander Drive  
Research Triangle Park, NC 27709

Product of Germany

# FINALSAN®

## HERBICIDAL SOAP

Additional Precautionary Statements, Directions for Use, and Storage and Disposal Instructions on Back Panel

- Fast acting weed, grass, algae and moss killer.
- The active ingredient in this product is exempted from the requirement of a tolerance for residues in or on all food commodities when used in accordance with good agricultural practice.
- Won't stain bricks, concrete or asphalt.

FIRST AID	
<b>IF IN EYES</b>	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.
<b>IF ON SKIN OR CLOTHING</b>	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
<b>IF SWALLOWED</b>	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 by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
<b>IF INHALED</b>	Move person to fresh air. If person is not breathing call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information concerning this product, call the poison control center 1-800-222-1222.	

### PRECAUTIONARY STATEMENTS

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS. WARNING:** Causes substantial but temporary eye injury. Causes skin irritation. Avoid breathing vapor or spray mist. Harmful if inhaled. Do not get in eyes, on skin or on clothing.

**Personal Protective Equipment (PPE) Requirements:** Applicators and other handlers must wear: coveralls worn over short-sleeved shirt and short pants, socks, chemical-resistant footwear, waterproof gloves and protective eyewear. When cleaning equipment a chemical-resistant apron should also be worn. 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.

### User Safety Recommendations

- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### ENVIRONMENTAL HAZARDS

This product may be hazardous to aquatic invertebrates. 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 cleaning equipment or disposing equipment washwaters or rinsate.

### DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Do not apply this product in a manner that will contact workers or

**ACTIVE INGREDIENT:**  
Ammoniated soap of fatty acids..... 22%  
**OTHER INGREDIENTS** ..... 78%  
**TOTAL**..... 100%

**KEEP OUT OF REACH OF CHILDREN**  
**WARNING**

EPA REG. NO. 67702-8 EPA EST. NO. 48498-CA-1

NET CONTENTS: 2.5 GALLONS

other persons, either directly or through drift. Only protected workers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation. Read and follow all applicable directions and precautions on this label before using.

### Agricultural Use Requirements

Use this product 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), restricted-entry interval, and notification to workers. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

**Entry-Restrictions:** Do not enter or allow worker entry into treated areas during the restricted-entry interval of 24 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, wear:** coveralls worn over short-sleeved shirts and short pants, socks, chemical-resistant footwear, waterproof gloves and protective eyewear.

### Non-Agricultural Use Requirements

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

Keep unprotected persons out of treated areas until sprays have dried. For early reentry to treated areas and that involves contact with anything that has been treated such as plants, soil, or water, wear: coveralls, shoes, socks, and waterproof gloves.

### Application Directions:

#### Stand Alone Use:

Shake well before using.

- For the control of perennial or more established weeds, mix one part FINALSAN Herbicidal Soap with 5 parts water (16.7% v/v solution)
- For annual weeds and small, easy-to-kill weeds, mix one part FINALSAN Herbicidal Soap with 9 parts water (10% v/v solution)
- For the control of moss and algae, mix one part FINALSAN Herbicidal Soap with 19 parts water (5% v/v solution)

For the control of weeds and grass, apply the mixed solution at 75-200 gallons/acre (2 - 5 gallons/1000 ft<sup>2</sup>). For the control of moss and algae, apply the mixed solution at 8.3-25 gallons/1000 ft<sup>2</sup>. Spray weed thoroughly, using a coarse nozzle setting to reduce drift. Thorough coverage is extremely important. For spot treatment of individual weeds, apply the mixed solution to the center of plant to the point of runoff. Plant damage will be visible from a few hours to 2 days after spraying. Repeat treatment every 2 to 3 weeks to control new weeds growing from seed and re-growth from bi-annual and perennial weeds. Avoid spraying desirable plants. Thoroughly wash equipment after use.

**Tank Mixes:** FINALSAN Herbicidal Soap may be combined with other pesticides to broaden the target spectrum, improve the level of control, and enhance coverage. When used as a tank mix, observe all directions for use, crops, use rates, dilution ratios, precautions, and limitations, which appear on the tank mix product label. Follow the label directions for the most restrictive of label precautions and limitations. Do not mix this product with any other product that prohibits such

mixing.

Always predetermine the compatibility of labeled tank mixtures of this product with other products in advance of application by mixing proportional quantities of all products and water in a container and watching for adverse reactions. When tank mixing, add formulations in the following sequence: (1) wettable powders; (2) flowable liquids; (3) emulsifiable liquids; (4) FINALSAN Herbicidal Soap (5) water soluble liquids; and (6) adjuvants

**FINALSAN Herbicidal Soap plus Glyphosate Herbicides:** FINALSAN Herbicidal Soap is synergistic with certain postemergence herbicides. A mixture of this product and glyphosate has shown enhanced speed of top kill and improved control of numerous weed species. To enhance the activity of glyphosate-containing herbicides, and accelerate burndown of target weeds, use the necessary amount FINALSAN Herbicidal Soap to reach a final concentration of 5-16.7% v/v spray solution plus the labeled rate of the registered glyphosate product. Lower rates in the rate range will provide less visible burndown effect.

#### Rate Table:

Desired Final Volume of Spray Solution (gallons)	Amount of FINALSAN Herbicidal Soap in Spray Solution for Following Dilution Rate		
	1:19 (5% v/v)	1:9 (10% v/v)	1:5 (16.7% v/v)
1	6.4 ozs.	12.8 ozs.	21 ozs.
2.5	16 ozs.	32 ozs.	51 ozs.
5	32 ozs.	64 ozs.	102 ozs.
7.5	48 ozs.	96 ozs.	1.25 gal
10	64 ozs.	1 gal	1.6 gal

**Product Information:** FINALSAN Herbicidal Soap is a fast-acting, non-selective weed, grass, algae and moss killer. This product is not translocated. It will burn only those plant parts that are coated with spray solution. The best results are obtained with young, actively growing weeds, less than 5 inches high. FINALSAN Herbicidal Soap can be used any time during the year and works best during warm and dry conditions. Application during cold weather may delay appearance of plant damage. If rain falls within 3 hours of treatment, an additional spray may be required. FINALSAN Herbicidal Soap controls many common annual weeds and suppresses the growth of some bi-annual and perennial weeds. It can be used in cultivated areas prior to planting grass, flowers and vegetables. Areas can be re-sown five days after treatment. Inadvertent overspray of FINALSAN Herbicidal Soap does not stain concrete, pavement, stucco or wood.

#### Use Sites:

##### Outdoors and Greenhouses

**Terrestrial Food and Feed Crops:** Grapes, cereal grains, vegetable crops, orchards, fruit and nut trees, vines, field crops (e.g.: artichokes, beans, corn, cotton, ginseng, herbs, hops, peas, peanuts, potatoes, small fruits, sugarbeets, sunflowers, sweet potatoes, tobacco, tomatoes and yams), seedbed or site preparations, cultivated areas prior to the emergence of susceptible plant parts or as a directed spray avoiding desirable plants, fields after the crop has been harvested, and grass or non-grass forage/ fodder/hay.

**Terrestrial Non-Food Crops:** Ornamental herbaceous plants, ornamental lawns and turf, ornamental woody shrubs, vines, and ornamental shade trees.

**Terrestrial Non-Crop Sites:** Around and on buildings, sidewalks, fences, trees, bark mulch, driveways and other right-of-ways, patios, gravel, on structures holding flowers, trees, shrubs, vines and vegetables, landscaped areas, lawns, and on and around buildings and structures, such as benches, walls, floors, and roofs.

#### Use Methods:

**Vegetation Burndown:** General control of weeds, grass, algae and moss for site preparation and non-crop areas. Spot treatments may be used in crop and pasture situations. Applications may be made in and around desirable plants when contact of foliage and green bark is avoided.

**Directed and Shielded Sprays:** Applications may be made around desirable plants when contact of foliage and green bark is avoided.

**Prior to Emergence of Plants from Seed, Perennial Rootstocks, and Bulbs:** Ensure applications are made before new growth or crop emerges from soil or damage will occur. Areas can be re-sown five days after treatment.

**Sucker Control, Pruning and Trimming:** To burn back and control epicormic shoots, sucker growth, and other unwanted growth on woody trees, foliage growth on vines, excessive cane growth in brambles, or other listed use

sites. Apply only to unwanted vegetative parts. Apply before suckers become woody.

**Harvest Aid and Desiccation:** To remove leaves of plants prior to harvest and/or burndown of weeds to facilitate harvest. Harvest aid and desiccation uses include applications to root and tuber vegetables, bulb vegetables, and cotton only. Applications must be made no later than 24 hours prior to harvest.

**Post-Harvest Spray:** To control weeds, grass, moss and algae growing in fields after the commodity has been harvested.

**Structural and Building Applications:** To control weeds, grass, moss and algae in and around buildings and structures such as benches, walls, floors, and roofs.

**Over-seeding Burndown:** Apply a 10% v/v solution of FINALSAN Herbicidal Soap at 1.8 gallons/1000 ft<sup>2</sup> to burn down grass before over-seeding, facilitate grass removal and disposal, and allow a more timely re-seeding process with labor, fuel and equipment savings.

#### Pests:

Weeds controlled or suppressed by FINALSAN Herbicidal Soap include the following:

- chickweed *Stellaria media*
- corn spurry *Spergula arvensis*
- dandelion *Taraxacum spp.*
- groundsel *Senecio spp.*
- lamb's-quarters *Chenopodium album*
- mouse-eared chickweed *Cerastium vulgatum*
- mustards *Brassica spp.*
- plantain *Plantago spp.*
- redroot pigweed *Amaranthus retroflexus*
- round leaved mallow *Malva spp.*
- sheep sorrel *Rumex acetosella*
- shepherd's-purse *Capsella bursa-pastoris*
- stinkweed *Thlaspi arvense*
- thistle *Cirsium spp.*
- annual bluegrass *Poa annua*
- large crabgrass *Digitaria sanguinalis*
- perennial ryegrass *Lolium perenne*
- creeping red fescue *Festuca rubra*
- hard fescue *Festuca ovina*
- colonial bentgrass *Agrostis tenuis*
- moss, algae, and lichens

#### STORAGE AND DISPOSAL

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

**STORAGE:** Store in a secure place, away from open fire or flame. Keep container closed and reseal after use. Product may be damaged by freezing. Do not store product below 39°F. If spilled, use absorbent materials and dispose of in an approved manner.

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

**CONTAINER HANDLING:** Nonrefillable container. Do not reuse or refill this container. Triple rinse container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available.

#### BATCH CODE

#### NOTICE TO BUYER

To the extent consistent with applicable law, seller warrants that this product conforms to the chemical description on this label and is reasonably fit for purposes stated on this label only when used in accordance with directions under normal use conditions. This warranty does not extend to use of this product contrary to label directions, or under abnormal use conditions, or under conditions not reasonably foreseeable to seller. Buyer assumes all risk of any such use. Seller makes no other warranties, either expressed or implied.

Finalsan™ is a trademark of W. Neudorff GmbH KG, Germany.

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31860 Emmerthal, Germany



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