

YEARLY OPERATION PLAN (YOP)
Town of Sturbridge
2022



Produced By:

Town of Sturbridge

Department of Public Works

Sturbridge MA, 01566

508-347-2515

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Sensitive Areas Not Readily Identifiable in the Field.

1.0 Main Goals and Purpose of the Operation Plan

The intention of 333 CMR 11.00, Rights of Way (ROW) management, is to promote and implement integrated vegetation management (IVM) techniques and practices. The purpose is also to set procedures in place that minimize the risk of unreasonable adverse effects on human health and the environment associated with the use of herbicides along curbs and sidewalks in Sturbridge. Problem vegetation control materials are selected and applied in a manner that minimizes risks to human health, beneficial, non target organisms, and the environment. The regulations of the vegetation control program give the opportunity for the public and municipal agency to review and input feedback on the right to way plans. The town of Sturbridge will be able to post the operational plan on the town website.

A Yearly Operational Plan (YOP) must be submitted to the Massachusetts Department of Agricultural Resources (MDAR) every year herbicides are intended for use to maintain rights of way in town. The yearly operational plan provides a policy and procedure for vegetative management the whole year. The Town of Sturbridge has submitted a VMP for approval the MDAR and it will be reviewed by the town hall officials as well.



Pictures above show sidewalks in right of way that are proposed to be treated.

2.0 Personnel Supervising YOP

Name and Title: Mr. Mark Augello
Department: Department of Public Works
Address: 1 New Boston Road, Sturbridge, MA 01566
Telephone and Email Address: 508-347-2515 maugello@sturbridge.gov

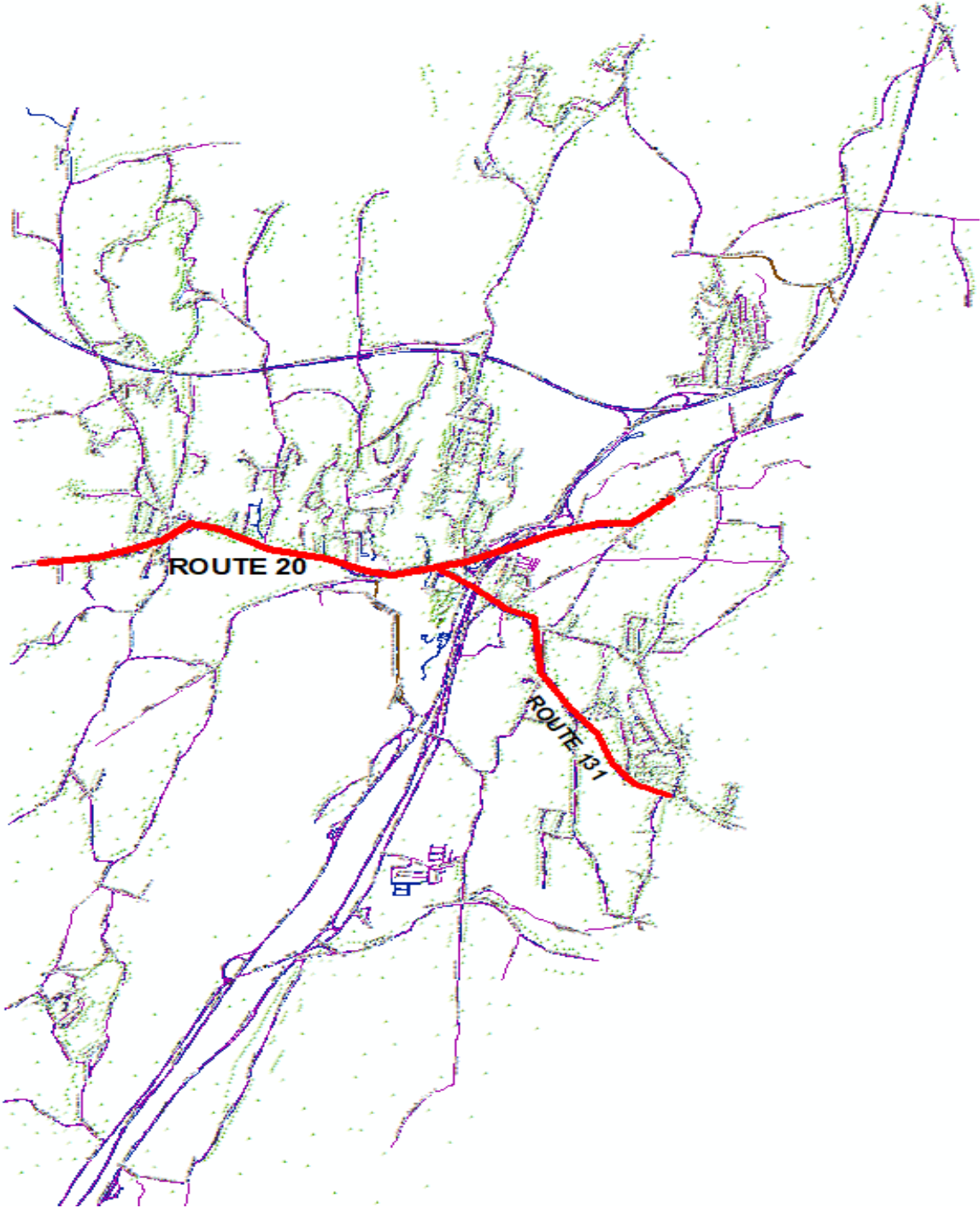
Personnel Performing Herbicide Treatments:

Mr. Greg Dorman is foreman at Northern Tree Company, Palmer, Mr. Dorman will be performing all herbicide applications in the Town of Sturbridge. Mr. Dorman currently holds a Massachusetts Pesticide Applicators Certification, Certification number CC-0003947 Category 40.

Company Information:
Northern Tree Services Inc
Tree service in Palmer, Massachusetts
Address: 1290 Park St, Palmer, MA 01069
Phone: [\(800\) 232-6132](tel:(800)232-6132)

3.0 Extent of Work Area in Sturbridge:

Red line shows length of work on route 20 and route 131 below.



4.0 Herbicide Application Techniques and Alternative control measures.

The herbicide will be applied in accordance with the manufacturer's herbicide label and at the lowest labeled rate. For alternative control procedures when the public works is not able to spray, the public works personnel will run hand trimmers along the sidewalks. Other alternative controls will include routine street sweeping along with crack and road repairs.

Foliar treatments: These will be made using ready to use squirt bottles or hand pump backpacks. High volume foliar application may include a truck mounted hydraulic sprayer not to exceed 60 psi. In both cases, the herbicide solution is applied to lightly wet the target plant area. These techniques have few limitations with the exception of being reduced effectiveness on tall, high density target vegetation and will not be used on vegetation over 12 feet in height.

Cut stump treatments: These measures will not need to be performed in which mechanical cutting is performed on the stump and herbicide is then applied to it.

Use of Equipment: The equipment the applicator will use is the spray truck, a low-volume pressure sprayer and a pump tank for smaller areas like the medians

Our contractor will keep all equipment they are using in good working condition so they can produce quality work for the town. The town also requires that the equipment the contractor utilizes be calibrated to be the most effective to control the target vegetation.

Safety Measures : The town will make sure that the vegetation management work is carried out in a professional and efficient manner and an efficient manner so it effects to environment occur as little as possible which is important with these sidewalks in close proximity to the Quinnebaug River. Moreover they have knowledge of what vegetation should be removed and what should be protected. The contractor will have a certified applicator and supervision which should be watching for the proper use of personal protective equipment.

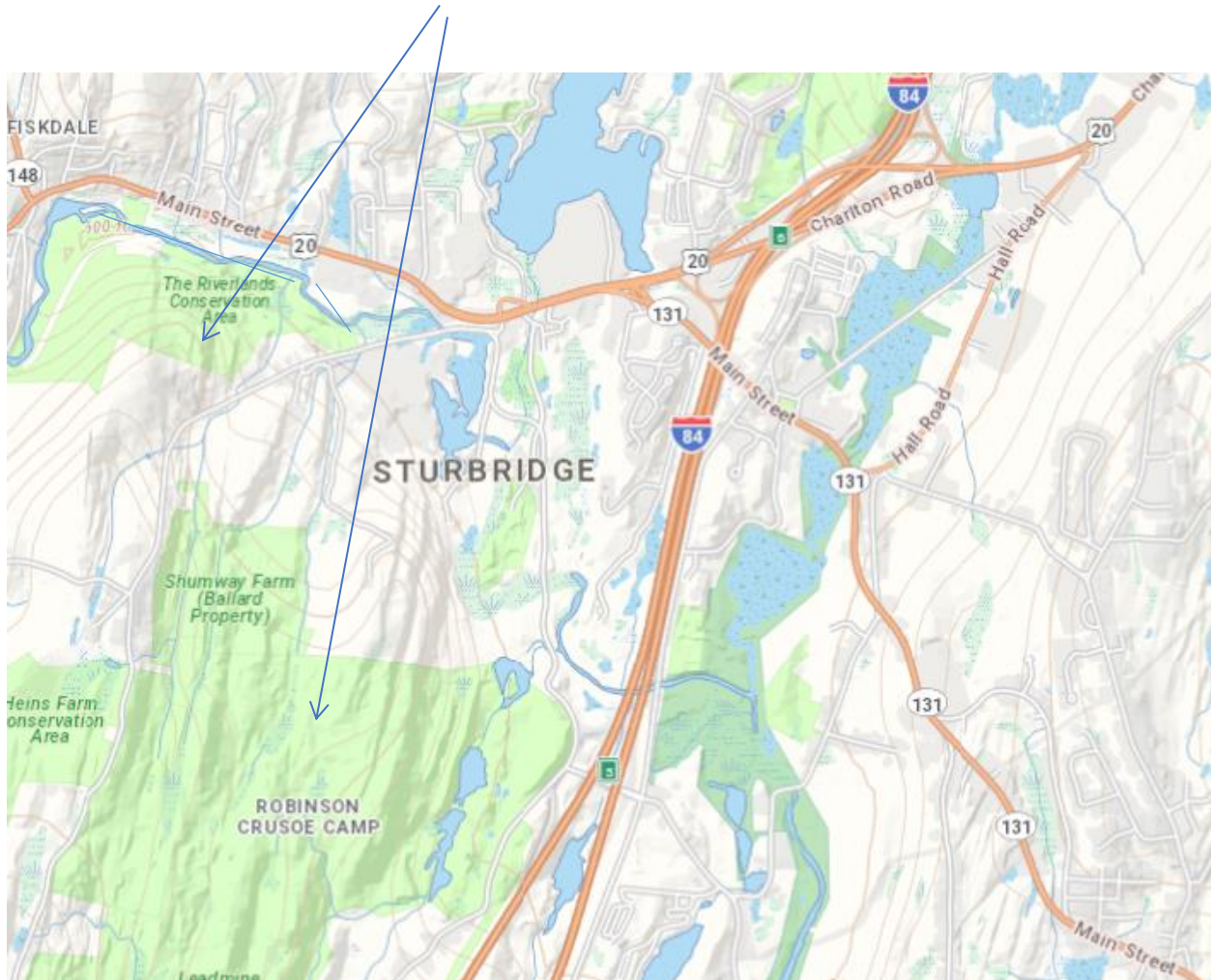
Regulations: The applicator will comply with all applicable federal and state laws and regulations. OSHA regulations apply in town as well as Mass DOT since route 20 and route 131 are state roads. The applicators will be expected to follow right of way laws per **333 CMR 11.00** . Along with adhering to the regulations, the town expects that applicators will use common sense and not work on the during bad conditions. Bad conditions for applying pesticides would be high wind, heavy fog, extreme heat, or deep snow/ice.

Since the town contracted applicators will represent The Town of Sturbridge we require that they document the work, they will write a ticket or report that states the date, names of workers, type of equipment used, method of application, target vegetation. They will need to outline the name of the chemicals used with the EPA numbers. Weather conditions will be included in the contractor report on the day of application.

5.0 Target Vegetation

The target vegetation can be labeled nuisance Vegetation, This category includes nuisance vegetation that could cause problems to the public, employees, or contractors. Target vegetation is primarily poison ivy, crabgrass, quackgrass, and sticker weed. The plants present a trip hazard to runners in which the town has received many complaints. There are also aesthetic complaints. These weeds can grow tall and block fire hydrants which is a nuisance. This type of vegetation is also detrimental to the sidewalks in terms of causing cracks which causing wear in the infrastructure. The crews will not be spraying in any areas of critical concern or for invasive species.

Areas of concern are highlighted in green on map below



6.0 Handling of Herbicides

Herbicides will be handled and applied only in accordance with label instructions. Applicators that work for the contractor will follow safety precautions for the public and the environment.

All the mixing and loading of herbicides will be conducted at the central facility where they store the herbicides. They will only use the amount of herbicide necessary so that waste and problems are minimized. When the treatment is due to be performed, the contractor will have spill prevention kits and cleaning materials so that drainage is protected. The applicators will also carry all supporting documentation required, ie: SDS, VMP, YOP and labels.

Spill prevention


As soon as any spill is observed, immediate action will be taken to contain the spill; then protect the area. The reason for the spill should be identified. Spill containment will be accomplished by covering the spill with absorptive material. If there is a large spill, the applicator should put preventative borders up. In the event of a fire or a serious problem, we will notify the Sturbridge, fire department. Materials that were used in any kind of spill such as brooms or kits will be removed from the site and disposed of properly. They should report to the Pesticide Bureau. In the event of a spill we will have to notify the Sturbridge F.D and the Mass DEP.

Emergency Contacts

- Sturbridge Police Department (508) -347-2525 or 911
- Sturbridge Fire Department (508)-347-2525
- Sturbridge Department of Public Works (508-347-2515
- Mass Department of Environmental Protection Emergency Response 1-888-304-1133
- MDAR, Division of Crop and Pest Services Clayton Edwards (617-626-1700.
- MA Department of Public Health, Bureau of Environmental Health's. Environmental Toxicology Program 617-339-8351
- Massachusetts Poison Control Center
- 24 hour hotline (800) 222-1222
- National Pesticide Information Center (800) 858 7378
- National Animal Poison Control Center (888) 426-4435
- Water Department Manager-Shane Moody (508)-347-2513
- Department of Conservation in Sturbridge- (508)-347-2506

7.0 Herbicides Proposed

The contractor proposes to use Rodeo Herbicide which is a glyphosate herbicide for broad spectrum weed and brush control on multiple use sites, including roadside, rights of way, forestry and aquatic. It is classified as essentially non-volatile to reduce off target concerns. It binds readily with soil particles but without soil residual activity. The chemical is kept in a locked storage locker on site at Northern Tree in Palmer, MA. There is a spill kit on the truck and they follow standard safety procedures and right of way rules. Chemical information is attached on the next page.

MATERIAL SAFETY DATA SHEET										
 <p style="margin-top: 10px;">RODEO* HERBICIDE</p>	<p style="font-size: small; margin-top: 0;">Emergency Phone: 800-992-5994 Dow AgroSciences LLC Indianapolis, IN 46268</p> <p style="font-size: small; margin-top: 10px;">Effective Date: 3/23/04 Product Code: 84825 MSDS: 006694</p>									
<p>1. PRODUCT AND COMPANY IDENTIFICATION:</p> <p>PRODUCT: Rodeo* Herbicide</p> <p>COMPANY IDENTIFICATION: Dow AgroSciences LLC 9330 Zionsville Road Indianapolis, IN 46268-1189</p>	<p>EXTINGUISHING MEDIA: Foam, CO₂, Dry Chemical</p> <p>FIRE AND EXPLOSION HAZARDS: Foam fire extinguishing system is preferred because uncontrolled water can spread possible contamination. Toxic irritating gases may be formed under fire conditions.</p> <p>FIRE-FIGHTING EQUIPMENT: Use positive-pressure, self-contained breathing apparatus and full protective equipment.</p>									
<p>2. COMPOSITION/INFORMATION ON INGREDIENTS:</p> <table style="width: 100%; border: none;"> <tr> <td style="font-size: small;">Glyphosate IPA:</td> <td style="font-size: small;">CAS # 038641-94-0</td> <td style="font-size: small;">53.8%</td> </tr> <tr> <td style="font-size: small;">N-(phosphono-methyl) glycine, Isopropylamine Salt</td> <td></td> <td></td> </tr> <tr> <td style="font-size: small;">Balance, Total</td> <td></td> <td style="text-align: right; font-size: small;">46.2%</td> </tr> </table>	Glyphosate IPA:	CAS # 038641-94-0	53.8%	N-(phosphono-methyl) glycine, Isopropylamine Salt			Balance, Total		46.2%	<p>6. ACCIDENTAL RELEASE MEASURES:</p> <p>ACTION TO TAKE FOR SPILLS: Absorb small spills with an inert absorbent material such as Hazorb, Zorbball, sand, or dirt. Report large spills to Dow AgroSciences on 800-992-5994.</p>
Glyphosate IPA:	CAS # 038641-94-0	53.8%								
N-(phosphono-methyl) glycine, Isopropylamine Salt										
Balance, Total		46.2%								
<p>3. HAZARDOUS IDENTIFICATIONS:</p> <div style="border: 1px solid black; padding: 2px; font-size: x-small; margin-top: 5px;"> <p style="text-align: center; margin: 0;">EMERGENCY OVERVIEW</p> <p style="margin: 0;">Clear, pale yellow liquid. May cause eye irritation. Slightly toxic to aquatic organisms.</p> <p style="margin: 0;">EMERGENCY PHONE NUMBER: 800-992-5994</p> </div>	<p>7. HANDLING AND STORAGE:</p> <p>PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep out of reach of children. Do not swallow. Avoid contact with eyes, skin, and clothing. Avoid breathing vapors and spray mist. Handle concentrate in ventilated area. Wash thoroughly with soap and water after handling and before eating, chewing gum, using tobacco, using the toilet or smoking. Keep away from food, feedstuffs, and water supplies. Store in original container with the lid tightly closed. Store above 10°F (-12°C) to keep from crystallizing.</p>									
<p>4. FIRST AID:</p> <p>EYE: Flush eyes thoroughly with water for several minutes. Remove contact lenses after initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.</p> <p>SKIN: Wash skin with plenty of water.</p> <p>INGESTION: No emergency medical treatment necessary.</p> <p>INHALATION: Remove person to fresh air; if effects occur, consult a physician.</p> <p>NOTE TO PHYSICIAN: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.</p>	<p>8. EXPOSURE CONTROLS/PERSONAL PROTECTION:</p> <p>These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions.</p> <p>EXPOSURE GUIDELINES: None established</p> <p>ENGINEERING CONTROLS: Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.</p>									
<p>5. FIRE FIGHTING MEASURES:</p> <p>FLASH POINT: >214°F (>101°C)</p> <p>METHOD USED: Setaflash</p> <p>FLAMMABLE LIMITS: LFL: Not applicable UFL: Not applicable</p>	<p>RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:</p> <p>EYE/FACE PROTECTION: Use safety glasses.</p> <p>SKIN PROTECTION: No precautions other than clean body-covering clothing should be needed.</p>									
<p>*Trademark of Dow AgroSciences LLC</p>										

MATERIAL SAFETY DATA SHEET



RODEO* HERBICIDE

Emergency Phone: 800-992-5994
Dow AgroSciences LLC
Indianapolis, IN 46268

Effective Date: 3/23/04
Product Code: 84825
MSDS: 006694

RESPIRATORY PROTECTION: For most conditions, no respiratory protection should be needed; however, if discomfort is experienced, use a NIOSH approved air-purifying respirator.

APPLICATIONS AND ALL OTHER HANDLERS: Please refer to the product label for personal protective clothing and equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES:

APPEARANCE: Clear, pale yellow liquid
DENSITY: 10.0 - 10.5 lbs/gal
pH: 4.8 - 5.0
ODOR: None
SOLUBILITY IN WATER: Miscible
SPECIFIC GRAVITY: 1.21 gm/L
FREEZING POINT: -7°F - -10°F (-21°C - -25°C)

10. STABILITY AND REACTIVITY:

STABILITY: (CONDITIONS TO AVOID) Stable under normal storage conditions.

INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID) Galvanized or unlined steel (except stainless steel) containers or spray tanks may produce hydrogen gas which may form a highly combustible gas mixture.

HAZARDOUS DECOMPOSITION PRODUCTS: None known.

HAZARDOUS POLYMERIZATION: Not known to occur.

11. TOXICOLOGICAL INFORMATION:

EYE: May cause slight temporary eye irritation. Corneal injury is unlikely.

SKIN: Essentially non-irritating to skin. Prolonged skin contact is unlikely to result in absorption of harmful amounts. The LD₅₀ for skin absorption in rabbits is >5000 mg/kg. Did not cause allergic skin reactions when tested in guinea pigs.

INGESTION: Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts. The oral LD₅₀ for rats is >5000 mg/kg.

INHALATION: Brief exposure (minutes) is not likely to cause adverse effects. The aerosol LC₅₀ for rats is >6.37 mg/L for 4 hours.

SYSTEMIC (OTHER TARGET ORGAN) EFFECTS: For a similar material, glyphosate, in animals, effects have been reported on the following organ: liver.

CANCER INFORMATION: A similar material, glyphosate, did not cause cancer in laboratory animals.

TERATOLOGY (BIRTH DEFECTS): For glyphosate IPA, available data are inadequate for evaluation of potential to cause birth defects.

REPRODUCTIVE EFFECTS: For glyphosate IPA, available data are inadequate to determine effects on reproduction.

MUTAGENICITY: For a similar material, glyphosate, in vitro and animal genetic toxicity studies were negative.

12. ECOLOGICAL INFORMATION:

ENVIRONMENTAL DATA:

ECOTOXICOLOGY:

Material is practically non-toxic to aquatic organisms on an acute basis (LC₅₀ or EC₅₀ is >100 mg/L in most sensitive species tested).

Acute LC₅₀ for rainbow trout (*Oncorhynchus mykiss*) is >2500 mg/L.

Acute immobilization EC₅₀ in water flea (*Daphnia magna*) is 918 mg/L.

Material is practically non-toxic to birds on an acute basis (LD₅₀ is >2000 mg/kg).

Acute oral LD₅₀ in bobwhite (*Colinus virginianus*) is >2000 mg/kg.

The LC₅₀ in earthworm *Eisenia foetida* is >1000 mg/kg. Acute contact LD₅₀ in honey bee (*Apis mellifera*) is >100 µg/bee.

Acute oral LD₅₀ in honey bee (*Apis mellifera*) is >100 µg/bee.

Growth inhibition EC₅₀ in green alga (*Selenastrum capricornutum*) is 127 mg/L.

Growth inhibition EC₅₀ in duckweed (*Lemna sp.*) is 24.4 mg/L.

13. DISPOSAL CONSIDERATIONS:

DISPOSAL METHOD: If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities.

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MATERIAL SAFETY DATA SHEET



RODEO* HERBICIDE

Emergency Phone: 800-992-5994
Dow AgroSciences LLC
Indianapolis, IN 46268

Effective Date: 3/23/04
Product Code: 84825
MSDS: 006694

This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

If the material as supplied becomes a waste, follow all applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION:

U.S. DEPARTMENT OF TRANSPORTATION (DOT) INFORMATION:

For all package sizes and modes of transportation:
This material is not regulated for transport.

15. REGULATORY INFORMATION:

NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations.

U.S. REGULATIONS

SARA 313 INFORMATION: To the best of our knowledge, this product contains no chemical subject to SARA Title III Section 313 supplier notification requirements.

SARA HAZARD CATEGORY: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Not to have met any hazard category

TOXIC SUBSTANCES CONTROL ACT (TSCA): All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

STATE RIGHT-TO-KNOW: This product is not known to contain any substances subject to the disclosure requirements of

New Jersey
Pennsylvania

OSHA HAZARD COMMUNICATION STANDARD: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA, or SUPERFUND): To the best of our knowledge, this product contains no chemical subject to reporting under CERCLA.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:

CATEGORY	RATING
Health	1
Flammability	1
Reactivity	0

16. OTHER INFORMATION:

MSDS STATUS: Revised Sections: 3,4,11,12,13,14 & 15
Reference: DR-0361-8028
Replaces MSDS Dated: 1/12/00
Document Code: D03-148-002
Replaces Document Code: D03-148-001

The Information Herein Is Given In Good Faith, But No Warranty, Express Or Implied, Is Made. Consult Dow AgroSciences For Further Information.

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Sensitive Area Restrictions

333 CMR 11.04

CONTROL STRATEGIES FOR SENSITIVE AREAS

Sensitive Area	Minimum Buffer Zone (feet)	Control Method	Time Restriction Code
Public Ground Water Supplies	400'	Mechanical Only	None
Primary Recharge Area	Designated buffer zone or 1/2-mile radius	Mechanical, Recommended Herbicides*	1
Public Surface Water Supplies (Class A & Class B)	100'	Mechanical Only	None
	100'-400'	Recommended Herbicides	1
Tributary to Class A Water Source, within 400' upstream of water source	100'	Mechanical Only	None
	100'-400'	Recommended Herbicides	1
Tributary to Class A Water Source, greater than 400' upstream of water source	10'	Mechanical Only	None
	10'-200'	Recommended Herbicides	1
Class B Drinking Water Intake, within 400' upstream of intake	100'	Mechanical Only	None
	100'-200'	Recommended Herbicides	1
Private Drinking Water Supplies	50'	Mechanical Only	None
	50'-100'	Recommended Herbicides	2
Surface Waters	10'	Mechanical Only	None
	10'-100'	Recommended Herbicides	2
Rivers	10' from mean annual high-water line	Mechanical Only	None
	10'-200'	Recommended Herbicides	2
Wetlands	100' (treatment in wetlands permitted up to 10' of standing water)*+	Low Pressure Foliar, Cut Stump, Basal Recommended Herbicides	1
Habitated Areas	100' (for high-pressure foliar only)	Recommended Herbicides	2
Agricultural Area (Crops, Fruits, Pastures)	100' (for high-pressure foliar only)	Recommended Herbicides	2
Certified Vernal Pools	10'	Mechanical Only	None
Certified Vernal Pool Habitat	10'-outer boundary of habitat	As recommended by NHESP in their permit process, no treatment without written permission	
Priority Habitat	As recommended by NHESP in their permit process, no treatment without written permission		

Restriction Code #1: A minimum of twenty-four months shall elapse between applications

Restriction Code #2: A minimum of twelve months shall elapse between applications

*Massachusetts recommended herbicides for sensitive sites