

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Biopesticides and Pollution Prevention Division
(7511C)
1200 Pennsylvania Avenue NW
Washington, DC 20460

EPA Reg. Number: 84059-20

Date of Issuance: AUG 26 2014

Term of Issuance: UNCONDITIONAL

Name of Pesticide Product: MBI-011 EP

NOTICE OF PESTICIDE:

X Registration Re-registration
(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Marrone Bio Innovations
2121 Second Street, Suite B107
Davis, California 95618

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

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on her motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This registration does not eliminate the need for continual reassessment of the pesticide. If the EPA determines at any time that additional data are required to maintain in effect an existing registration, the Agency will require submission of such data under section 3(c)(2)(B) of FIFRA.

This product is unconditionally registered in accordance with FIFRA Sec. 3(c)(5) and is subject to the following terms:

- 1. Submit and/or cite all data required for registration of your product under FIFRA section 3(c)(5) and section 4 when the Agency requires all registrants of similar products to submit such data.
2. Revise the EPA Registration Number to read, "EPA Reg. No. 84059-20."
3. A one year study is required to satisfy the Storage and Stability and Corrosion Characteristics requirements (Guidelines: OCSPP 830.6317 and 830.6320). You have 18 months from the date of registration to provide these data.
4. Submit three (3) copies of the revised final printed labeling before you release the product for shipment.

A stamped copy of the label and an A-79 Enclosure are enclosed for your records.

Signature of Approving Official:

[Handwritten Signature]

Date: 8/26/14

CONCURRENCES

Table with columns for SYMBOL, SURNAME, and DATE. Includes handwritten entries for 7511P, COLE, HOUK, LEAHY and dates 8/25/14, 8/26/14.

MBI-011 EP

MASTER LABEL, containing:
Sublabel A: Agricultural Use
Sublabel B: Non-Agricultural Use Sites
Sublabel C: Residential Use Sites

EPA Reg. No.: (pending as File Symbol 84059-EN)

Manufactured by: Marrone Bio Innovations, Inc.
2121 Second St., Suite B-107
Davis, CA 95618 USA
1-877-664-4476; www.marronebioinnovations.com; info@marronebio.com

ACCEPTED
AUG 26 2014

Under the Federal Insecticide, Fungicide,
and Rodenticide Act, as amended, for
the pesticide registered under
EPA Reg. No. 84059-20

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Sublabel A: Agricultural Use Sites

MBI-011 EP

For control of grasses and broadleaf weeds (both annual and perennial) (in non-crop areas) (in pre-emergent crop sites).

Burndown herbicide.

Emulsifiable concentrate.

Active Ingredient: Sarmentine 50.0%
Other ingredients: 50.0%
Total: 100.0%

**KEEP OUT OF REACH OF CHILDREN
WARNING**

FIRST AID	
If in eyes	<ul style="list-style-type: none"> • 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.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.	

EPA Reg. No.: (pending as File Symbol 84059-EN)
Net Contents: 1, 2.5, 5 gallons
(Batch)(Lot) No: XXXX

EPA Est. No.: XXXXX-XX-XXX

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Marrone Bio Innovations name and logo are registered trademarks of Marrone Bio Innovations, Inc.

PRECAUTIONARY STATEMENTS

Hazards to humans and domestic animals – WARNING. Causes substantial but temporary eye injury Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield or safety glasses). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE):

Applicators and other handlers must wear:

- Long sleeved shirt and long pants or coveralls
- Shoes plus socks
- Gloves
- Protective eyewear
- Filtering facepiece respirator (N95, R95, or P95)

Follow the manufacturer's instructions for cleaning / maintaining PPE. If no instructions are available, use detergent and hot water for washables. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

- Remove clothing/PPE 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: For terrestrial uses: Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean highwater mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

PHYSICAL OR CHEMICAL HAZARD

Flammable. Keep away from heat and open flame.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exemptions pertaining to the statements on this label about personal protective equipment (PPE) and the restricted entry interval (REI). The requirements

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in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

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

- Gloves
- Protective eyewear
- Long sleeved shirt and long pants or coveralls
- Shoes plus socks
- Filtering facepiece respirator (N95, R95, or P95)

PRODUCT INFORMATION

MBI-011 EP is a broad spectrum weed killer that contains Sarmentine. It is non-selective and controls most annual and perennial weeds, both grasses and broadleaves. MBI-011 EP does not translocate. It will affect only those portions of plants that are coated with the spray solution. Spray until thoroughly wet. Targeted weeds should be six inches in height or less. MBI-011 EP is not for use on drought stressed weeds, weeds with little or no green foliage, or mature woody bark of trees and vines.

Environmental Conditions: MBI-011 EP is effective over a wide range of environmental conditions. Cool weather may slow the activity of MBI-011 EP. For best results, spray when ambient high temperatures are expected above 50°F and lows above freezing. On cooler days, spray during the warmest part of the day.

USE RESTRICTIONS

Not for food use. Do not apply to food crops, food commodities, or bearing trees or vines.

Do not apply this product through any type of chemigation system. Do not apply this product by aerial application.

Allow heavy dew to evaporate prior to MBI-011 EP applications.

Do not apply if windy conditions allow for product to drift or rain is expected within 24 hours.

Do not allow the herbicide solution to contact desirable vegetation as small amounts can cause severe damage to crops and other desirable plants.

APPLICATION INSTRUCTIONS

All rotation crops can be planted immediately after the last application of MBI-011 EP.

Apply spray solution until weeds are thoroughly wet. Use a minimum spray volume of 60 gallons per acre. Use side sprays to reach susceptible undersides of weed leaves.

A non-ionic surfactant can be used at a minimum rate of 0.125% v/v, 1 pint per 100 gallons of the finished spray volume.

Mixing MBI-011 EP: Do not add MBI-011 EP to the mix tank before introducing the desired amount of water. Fill spray tank ½ full with clean water. Add MBI-011 EP while agitating. Then fill tank with remainder of water and continue circulation. Maintain circulation while loading and spraying. Do not mix more MBI-011 EP than can be used in 24 hours.

Tank mixing MBI-011 EP: This product can be tank mixed in accordance with the most restrictive of label limitations and precautions. Do not exceed label dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing. To ensure compatibility of tank-mix combinations they must be evaluated prior to use. To determine the physical compatibility of this product with other products use a jar test. Using a quart jar, add the proportionate amounts of the products to one quart of water with agitation. Add dry formulations first, then flowables, then emulsifiable concentrates last. After thoroughly mixing, let this mixture stand for 5 minutes. If the combination remains mixed or can be readily be remixed, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank.

IMPORTANT – Avoid contact with the crop and/or food commodities. Unintentional or accidental contact (including drift) can result in severe damage or loss of the crop.

Ground Application

Broadcast Applications:

Apply MBI-011 EP at a ratio of 1 part MBI-011 EP into 24 parts of water (see Table 1).

For optimum application of MBI-011 EP, select nozzles and pressure that deliver medium spray droplets. Use flat fan or hollow cone nozzles at 30-50 psi. Use a 30% overlap of the spray pattern.

Do not use flood, rain drop, whirl chamber or any other nozzle types that produce coarse, large spray droplets.

Table 1 - Broadcast Application: Mixing Rates for 1:24 Dilution		
Final Spray Volume	Amount of MBI-011 EP 1:24 ratio (4% dilution rate)*	Amount of water
1 Gal	5.1 fl. oz.	122.9 fl. oz.
100 Gal	4 gal	96 gal.

*Percent MBI-011 EP in water.

A minimum spray volume of 60 gallons per acre is required. Spray until thoroughly wet.

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Spot Applications: In cool situations or for tough to kill weeds; use a more concentrated spray of MBI-011 EP. Use a 6% dilution rate of MBI-011 EP, a ratio of 1 part MBI-011 EP into 16 parts of water, up to the day of harvest (see Table 2).

Table 2 - Spot Applications: Mixing Rates for 1:16 Dilution		
Final Spray Volume	Amount of MBI-011 EP 1:16 ratio (6% dilution rate)*	Amount of Water
1 gal	8 fl. oz.	120 fl. oz.
100 gal	6 gal	94 gal

*Percent MBI-011 EP in water.

Control or Suppression of Emerged Weeds in Row Middles (Banded Treatment) and Between Non-Bearing Vines and Trees: Apply MBI-011 EP at a 4% dilution rate in a water volume equivalent to a minimum of 60 gallons per acre broadcast. Apply by directing spray between the rows and using hooded sprayers to prevent spray contact with crop plants. Keep hoods adjusted to ensure adequate contact with weeds while shielding the crop from the herbicide solution. To minimize drift, do not use nozzles or nozzle configurations with produce fine droplets (mist).

Directions for Minimizing Spray Drift: Spray directly on weeds or apply with hooded spray equipment to prevent the spray from contacting crop. Do not use mist blowers or any other application techniques, which may result in drift on to desirable vegetation. **Do not allow spray solution to drip, splash or drift on to desirable vegetation; small amounts can cause severe damage to crops.** Use low drift, low pressure nozzles.

To reduce the potential for off-target drift and for crop injury:

- Operate spray hoods on the ground or skimming across ground surface.
- Operate at ground speeds of no greater than 5 miles per hour to avoid bouncing of the spray hoods.
- Apply when wind speeds are 10 miles per hour or less.

Weeds controlled:

Annual Broadleaf and Grass Weeds such as: Annual bluegrass, Amaranthus spp (Pigweeds, Waterhemp), Arrowhead, Aster spp, Barnyard grass, Beggarweed, Bittercress, Black medic, Black nightshade, Bedstraw, Bromus, Buckwheat, Bulrush, Burweed, Carolina Geranium, Carpetweed, Chickweed, Cinquefoil, Clover, Cocklebur, , , Conyza spp., Crabgrass, Crotalaria, Cudweed, Ducksalad, Duckweed, Echinochloa, Fiddleneck, Filaree,, Foxtail., Galinsoga, Goatgrass, Goosefoot, Goosegrass, Grounsel, Hemp sesbania, Henbit, Jimsonweed, Knapweed, Knotweed, Kochia, Lactuca, Lamb's-quarters, London rocket, Mallow, Milkthistle, Monochoria, Morningglory, Mustard., Nightshade, Oxalis., Panicum, Puncturevine, Purslane, Ragweed, Redstem, Ryegrass, Shepherds purse, Sickle pod, Sida, Smallflower sedge, Smartweed (lady's thumb), Sowthistle, Sprangletop, Spurge, Starthistle, Sunflower, Thistles, Velvetleaf, Wild Radish.

Perennial Broadleaf and Grass Weeds such as: Amaranthus spp., Canada thistle, Cinquefoil (silvery), Clover spp., Curly dock, Dandelion, Ground ivy, Field bindweed, Johnsongrass,

Milkweed, Morning glory, Nutsedge, Plantain, Pepperweed, Quackgrass, Toadflax, Vetch, Wild carrot and Witch grass.

Other: Algae, Liverwort, and Moss

Apply to weeds under six inches in height and/or before weeds become well established.

Application Rates: MBI-011 EP is intended for non-selective weed control in and around the following areas:

Use Site	<u>Broadcast or Banded Treatment Instructions</u>	<u>Spot Treatment Instructions</u>	Notes
<p>Non-bearing Tree, Vine and Berry Crops, including:</p> <ul style="list-style-type: none"> Berries Citrus Grapes (wine, table, raisin) Hops Nuts Olives Pomegranate Pome Fruit Stone Fruit Strawberries 	<p>Apply at a 4% dilution rate of MBI-011 EP.</p> <p>Use a minimum spray volume of 60 gallons per acre.</p>	<p>In cool situations or for tough to kill weeds, use a more concentrated spray of MBI-011 EP. Spot treat with a 6% dilution rate of MBI-011 EP, a ratio of 1 part MBI-011 EP into 16 parts of water (see Table 2).</p>	<p>Do not apply this product through any type of irrigation system or by aerial application.</p> <p>Spray until weeds are thoroughly wet.</p> <p>Follow directions for minimizing spray drift.</p> <p>Avoid contact of herbicide solution, spray drift or mist with crop foliage, green bark of trunk or branches, fruit or other parts of trees, canes and vines.</p>
<p>Fields to be planted to row crops including:</p> <ul style="list-style-type: none"> Cereal grains Corn Peanuts Rice Soybeans 	<p>Make applications of MBI-011 EP before crop emergence or at the time of planting. Applications must be made before seedling emergence to avoid severe injury.</p> <p>Apply at a 4% dilution rate of MBI-011 EP.</p> <p>Use a minimum spray volume of 60 gallons per acre.</p>	<p>In cool situations or for tough to kill weeds, use a more concentrated spray of MBI-011 EP. Spot treat with a 6% dilution rate of MBI-011 EP, a ratio of 1 part MBI-011 EP into 16 parts of water (see Table 2).</p>	<p>Do not apply this product through any type of irrigation system.</p> <p>Spray until weeds are thoroughly wet.</p> <p>Follow directions for minimizing spray drift.</p> <p>Avoid contact of herbicide solution, spray drift or mist with crop foliage.</p>
<p>Fields to be planted to vegetable crops,</p>	<p>Make pre-crop emergence or at</p>	<p>In cool situations or for tough to kill</p>	<p>Do not apply this product through any type of irrigation system or by</p>

<p>including: Artichokes Asparagus Brassica (cole) Bulb Vegetables Curcurbits Fruiting Vegetables, including: tomato and pepper Leafy Vegetables Legume Vegetables Root and Tuber Vegetables</p>	<p>planting applications of MBI-011 EP, or apply to burn down winter foliage; applications must be made before seedling emergence to avoid severe injury.</p> <p>Apply at a 4% dilution rate of MBI-011 EP.</p> <p>Use a minimum spray volume of 60 gallons per acre.</p>	<p>weeds, use a more concentrated spray of MBI-011 EP. Spot treat with a 6% dilution rate of MBI-011 EP, a ratio of 1 part MBI-011 EP into 16 parts of water (see Table 2).</p>	<p>aerial application.</p> <p>Spray until weeds are thoroughly wet.</p> <p>Follow directions for minimizing spray drift.</p> <p>Avoid contact of herbicide solution, spray drift or mist with crop foliage.</p>
<p>Fields to be planted to herbs and spices:</p>	<p>Make a pre-crop emergence or at planting applications of MBI-011 EP, or apply to burn down winter foliage; applications must be made before seedling emergence to avoid severe injury.</p> <p>Apply at a 4% dilution rate of MBI-011 EP.</p> <p>Use a minimum spray volume of 60 gallons per acre.</p>	<p>In cool situations or for tough to kill weeds, use a more concentrated spray of MBI-011 EP. Spot treat with a 6% dilution rate of MBI-011 EP, a ratio of 1 part MBI-011 EP into 16 parts of water (see Table 2).</p>	<p>Do not apply this product through any type of irrigation system or by aerial application.</p> <p>Spray until weeds are thoroughly wet.</p> <p>Follow directions for minimizing spray drift.</p> <p>Avoid contact of herbicide solution, spray drift or mist with crop foliage.</p>
<p>Non-Crop Areas in Agricultural Use Sites: Including borders, fence lines, driveways, farmyards, roadways, farm buildings, fuel storage areas, rights-of-way, barrier strips, equipment areas, sidewalks, around mature landscaping, trees, shrubs, foliage and</p>	<p>Apply at a 4% dilution rate of MBI-011.</p> <p>Use a minimum spray volume of 60 gallons per acre.</p>	<p>In cool situations or for tough to kill weeds, use a more concentrated spray of MBI-011 EP. Spot treat with a 6% dilution rate of MBI-011 EP, a ratio of 1 part MBI-011 EP into 16 parts of water (see Table 2).</p>	<p>Do not apply this product through any type of irrigation system or by aerial application.</p> <p>Spray until weeds are thoroughly wet.</p> <p>Follow directions for minimizing spray drift.</p> <p>Avoid contact of herbicide solution, spray drift or mist with non-target foliage, green bark of trunk or branches, fruit or other parts of trees, canes and</p>

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ornamentals, around buildings, fence rows, in greenhouses and nurseries, around flower beds, and dry (non-flooded) areas around ponds, lakes, and drainage ditches on farms.			vines.
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STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool dry place.

Pesticide Disposal: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry). Pesticide wastes may be toxic. Improper disposal of unused pesticide, washwater or rinse water is a violation of federal law.

Container Handling: Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ 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 if available, or puncture and dispose of in a sanitary landfill or by incineration. Do not burn unless allowed by state and local ordinances.

MARRONE BIO INNOVATIONS WARRANTY

To the extent consistent with applicable law, the seller makes no warranty, expressed or implied, of merchantability, fitness or otherwise concerning use of this product. The user assumes all risks of use, storage or handling that are not in strict accordance with the accompanying directions.

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Sublabel B: Non-Agricultural Use Sites

MBI-011 EP

For control of grasses and broadleaf weeds (both annual and perennial).

Burndown herbicide.

Emulsifiable concentrate.

Active Ingredient: Sarmentine 50.0%
Other ingredients: 50.0%
Total: 100.0%

KEEP OUT OF REACH OF CHILDREN

WARNING

FIRST AID	
If in eyes	<ul style="list-style-type: none"> • 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.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.	

EPA Reg. No.: (pending as File Symbol 84059-EN
Net Contents: 1, 2.5, 5 gallons
(Batch)(Lot) No: XXXX

EPA Est. No.: XXXXX-XX-XXX

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PRECAUTIONARY STATEMENTS

Hazards to humans and domestic animals – WARNING. Causes substantial eye injury. Do not get in eyes or clothing. Wear protective eyewear (goggles, face shield, or safety glasses). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE):

Applicators and other handlers must wear:

- Long sleeved shirt and long pants
- Shoes plus socks
- Gloves
- Protective eyewear
- Filtering facepiece respirator (N95, R95, or P95)

Follow the manufacturer's instructions for cleaning / maintaining PPE. If no instructions are available, use detergent and hot water for washables. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

- Remove clothing/PPE 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: For terrestrial uses: Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean highwater mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

PHYSICAL OR CHEMICAL HAZARD

Flammable. Keep away from heat and open flame

DIRECTIONS FOR USE

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

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.

PRODUCT INFORMATION

MBI-011 EP is a broad spectrum weed killer that contains Sarmentine. It is non-selective and controls most annual and perennial weeds, both grasses and broadleaves. MBI-011 EP does not translocate. It will affect only those portions of plants that are coated with the spray solution. Spray until thoroughly wet. Targeted weeds should be six inches in height or less. MBI-011 EP

is not for use on drought stressed weeds, weeds with little or no green foliage, or mature woody bark of trees and vines.

Environmental Conditions: MBI-011 EP is effective over a wide range of environmental conditions. Cool weather may slow the activity of MBI-011 EP. For best results, spray when ambient high temperatures are expected above 50°F and lows above freezing. On cooler days, spray during the warmest part of the day.

USE RESTRICTIONS

Do not apply this product through any type of chemigation system. Do not apply this product by aerial application.

Allow heavy dew to evaporate prior to MBI-011 EP applications.

Do not apply if windy conditions exist or rain is expected within 24 hours.

Do not allow the herbicide solution to contact desirable vegetation as small amounts can cause severe damage to crops and other desirable plants.

APPLICATION INSTRUCTIONS

Apply spray solution until weeds are thoroughly wet. Use a minimum spray volume of 60 gallons per acre or 1.4 gallons per 1000 ft². Use side sprays to reach susceptible undersides of weed leaves.

A non-ionic surfactant can be used at a minimum rate of 0.125% v/v, 1 pint per 100 gallons of the finished spray volume.

Mixing MBI-011 EP: Do not add MBI-011 EP to the mix tank before introducing the desired amount of water. Fill spray tank ½ full with clean water. Add MBI-011 EP while agitating. Then fill tank with remainder of water and continue circulation. Maintain circulation while loading and spraying. Do not mix more MBI-011 EP than can be used in 24 hours.

Tank mixing MBI-011 EP: This product can be tank mixed in accordance with the most restrictive of label limitations and precautions. Do not exceed label dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing. To ensure compatibility of tank-mix combinations they must be evaluated prior to use. To determine the physical compatibility of this product with other products use a jar test. Using a quart jar, add the proportionate amounts of the products to one quart of water with agitation. Add dry formulations first, then flowables, then emulsifiable concentrates last. After thoroughly mixing, let this mixture stand for 5 minutes. If the combination remains mixed or can be readily be remixed, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank.

Ground Application

Broadcast Applications:

Apply MBI-011 EP at a ratio of 1 part MBI-011 EP into 24 parts of water (see Table 1).

For optimum application of MBI-011 EP, select nozzles and pressure that deliver medium spray droplets. Use flat fan or hollow cone nozzles at 30-50 psi. Use a 30% overlap of the spray pattern.

Do not use flood, rain drop, whirl chamber or any other nozzle types that produce coarse, large spray droplets.

Table 1 - Broadcast Application: Mixing Rates for 1:24 Dilution		
Final Spray Volume	Amount of MBI-011 EP 1:24 ratio (4% dilution rate)*	Amount of water
1 Gal	5.1 fl. oz.	122.9 fl. oz.
100 Gal	4 gal	96 gal.

*Percent MBI-011 EP in water.

A minimum spray volume of 60 gallons per acre is required. Spray until thoroughly wet.

Spot Applications: In cool situations or for tough to kill weeds; use a more concentrated spray of MBI-011 EP. Use a 6% dilution rate of MBI-011 EP, a ratio of 1 part MBI-011 EP into 16 parts of water (see Table 2).

Table 2 - Spot Applications: Mixing Rates for 1:16 Dilution		
Final Spray Volume	Amount of MBI-011 EP 1:16 ratio (6% dilution rate)*	Amount of Water
1 gal	8 fl. oz.	120 fl. oz.
100 gal	6 gal	94 gal

*Percent MBI-011 EP in water.

Directions for Minimizing Spray Drift: Spray directly on weeds or apply with hooded spray equipment to prevent the spray from contacting desirable vegetation. Do not use mist blowers or any other application techniques, which may result in drift on to desirable vegetation. **Do not allow spray solution to drip, splash or drift on to desirable vegetation; small amounts can cause severe damage to desirable vegetation.** Use low drift, low pressure nozzles.

These procedures will also reduce the potential for off-target drift and for desirable vegetation injury:

- Spray hoods must be operated on the ground or skimming across ground surface.
- Operate at ground speeds of no greater than 5 miles per hour to avoid bouncing of the spray hoods.
- Apply when wind speeds are 10 miles per hour or less.

Weeds controlled:

Annual Broadleaf and Grass Weeds such as: Annual bluegrass, Amaranthus spp (Pigweeds, Waterhemp), Arrowhead, Aster spp, Barnyard grass, Beggarweed, Bittercress, Black medic, Black nightshade, Bedstraw, Bromus, Buckwheat, Bulrush, Burweed, Carolina Geranium, Carpetweed, Chickweed, Cinquefoil, Clover, Cocklebur, Conyza spp., Crabgrass, Crotalaria, Cudweed, , Ducksalad, Duckweed, Echinochloa, Fiddleneck, Filaree,., Foxtail., Galinsoga, Goatgrass, Goosefoot, Goosegrass, Grousel, Hemp sesbania, Henbit, Jimsonweed, Knapweed, Knotweed, Kochia, Lactuca, Lamb's-quarters, London rocket, Mallow, Milkthistle, Monochoria, Morningglory, Mustard., Nightshade, Oxalis., Panicum, Puncturevine, Purslane, , Ragweed, Redstem, Ryegrass, Shepherds purse, Sickle pod, Sida, Smallflower sedge, Smartweed (lady's thumb), Sowthistle, Sprangletop, Spurge, Starthistle, Sunflower, Thistles, Velvetleaf, Wild Radish.

Perennial Broadleaf and Grass Weeds such as: Amaranthus spp., Canada thistle, Cinquefoil (silvery), Clover spp., Curly dock, Dandelion, Ground ivy, Field bindweed, Johnsongrass, Milkweed, Morning glory, Nutsedge, Plantain (), Pepperweed, Quackgrass, Toadflax, Vetch, Wild carrot and Witch grass.

Other: Algae, Liverwort, and Moss

Apply to weeds under six inches in height and/or before weeds become well established.

Application Rates: MBI-100 EP is intended for non-selective weed control in and around the following areas:

	<u>Broadcast or Banded Treatment Instructions</u>	<u>Spot Treatment Instructions</u>	Notes
Residential lawns and landscaped areas, ornamental gardens, golf courses, school playfields, municipal, state and federal parks and recreation areas, non-cropland driveways, patios, sidewalks, bike/hike trails, kennels, dog runs and other animal enclosures, interstate freeways/highways, federal and state highways and	Apply at a 4% dilution rate of MBI-011. Use a minimum spray volume of 60 gallons per acre or 1.4 gal per 1000 ft ²	In cool situations or for tough to kill weeds, use a more concentrated spray of MBI-011 EP. Spot treat with a 6% dilution rate of MBI-011 EP, a ratio of 1 part MBI-011 EP into 16 parts of water (see Table 2).	Do not apply this product through any type of irrigation system or by aerial application. Spray until weeds are thoroughly wet. Follow directions for minimizing spray drift. Avoid contact of herbicide solution, spray drift or mist with landscape plants, ornamentals and other desirable vegetation. Treated turf/lawns will turn brown but regrowth will occur.

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city/county roads and walkways, railroad rights-of-way, tank farms, power stations and easements and other rights-of-way, industrial sites and vacant lots.			
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SELECTIVE CONTROL OF ANNUAL BLUEGRASS (*Poa annua*) in MANAGED TURF

MBI-011 EP can be used to selectively control annual bluegrass in bentgrass and Kentucky bluegrass turf when applied at the rates and intervals specified below:

	<u>Broadcast Treatment Instructions</u>	<u>Application frequency</u>	Notes
Bentgrass turf on golf greens and tees	Apply 1-4 quarts per acre in 60-90 gallons of water per acre or 0.75 – 3.0 fluid ounces per 1000 square feet in 1 – 2 gallons of water	Apply every 14-28 days with shorter frequency for lower use rates and longer frequency for higher rates.	Apply during portions of the season when <i>Poa annua</i> is growing rapidly. MBI-011 EP will suppress growth of <i>Poa annua</i> allowing desired turf to fill voids.
Kentucky bluegrass fairways			

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool dry place. Avoid freezing.

Pesticide Disposal: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry). Pesticide wastes may be toxic. Improper disposal of unused pesticide, washwater or rinse water is a violation of federal law.

Container Handling: Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ 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 if available, or puncture and dispose of in a sanitary landfill or by incineration. Do not burn unless allowed by state and local ordinances.

**MARRONE BIO INNOVATIONS
WARRANTY**

To the extent consistent with applicable law, the seller makes no warranty, expressed or implied, of merchantability, fitness or otherwise concerning use of this product. The user assumes all risks of use, storage or handling that are not in strict accordance with the accompanying directions.

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Sublabel C: Residential Use Sites

MBI-011 EP

For control of grasses and broadleaf weeds (both annual and perennial).

Burndown herbicide.

Emulsifiable concentrate.

Active Ingredient: Sarmentine 50.0%
Other ingredients: 50.0%
Total: 100.0%

**KEEP OUT OF REACH OF CHILDREN
WARNING**

FIRST AID	
If in eyes	<ul style="list-style-type: none"> • 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.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.	

EPA Reg. No.: (pending as File Symbol 84059-EN)
Net Contents: 1, 2.5, 5 gallons
(Batch)(Lot) No: XXXX

EPA Est. No.: XXXXX-XX-XXX

Manufactured by: Marrone Bio Innovations, Inc.
2121 Second St., Suite B-107
Davis, CA 95618 USA
1-877-664-4476; www.marronebioinnovations.com; info@marronebio.com

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PRECAUTIONARY STATEMENTS

Hazards to humans and domestic animals –WARNING. Causes substantial but temporary eye injury. Do not get in eyes or clothing. Wear protective eyewear (goggles, face shield, or safety glasses) and gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Environmental Hazards: To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid runoff to water bodies or drainage systems.

PHYSICAL OR CHEMICAL HAZARD

Flammable. Keep away from heat and open

DIRECTIONS FOR USE

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

HOW IT WORKS

For non-selective spot treatment of individual weeds. Visible effects occur soon after treatment, and actively growing susceptible weeds are controlled with 1-2 days.

MBI-011 EP is for control of undesirable plants in and around the garden, on patios, sidewalks, driveways, under fences, and around established trees and shrubs.

MBI-011 EP controls the following:

Annual Broadleaf and Grass Weeds such as: Annual bluegrass, Amaranthus spp (Pigweeds, Waterhemp), Arrowhead, Aster spp, Barnyard grass, Beggarweed, Bittercress, Black medic, Black nightshade, Bedstraw, Bromus, Buckwheat, Bulrush, Burweed, Carolina Geranium, Carpetweed, Chickweed, Cinquefoil, Clover, Cocklebur, Conyza spp., Crabgrass, Crotalaria, Cudweed, Ducksalad, Duckweed, Echinochloa, Fiddleneck, Filaree, Foxtail, Galinsoga, Goatgrass, Goosefoot, Goosegrass, Grousel, Hemp sesbania, Henbit, Jimsonweed, Knapweed, Knotweed, Kochia, Lactuca, Lamb's-quarters, London rocket, Mallow, Milkthistle, Monochoria, Morningglory, Mustard, Nightshade, Oxalis, Panicum, Puncturevine, Purslane, Ragweed, Redstem, Ryegrass, Shepherds purse, Sickle pod, Sida, Smallflower sedge, Smartweed (lady's thumb), Sowthistle, Sprangletop, Spurge, Starthistle, Sunflower, Thistles, Velvetleaf, Wild Radish.

Perennial Broadleaf and Grass Weeds such as: Amaranthus spp., Canada thistle, Cinquefoil (silvery), Clover spp., Curly dock, Dandelion, Ground ivy, Field bindweed, Johnsongrass, Milkweed, Morning glory, Nutsedge, Plantain (), Pepperweed, Quackgrass, Toadflax, Vetch, Wild carrot and Witch grass.

Other: Algae, Liverwort, and Moss

Apply to weeds under six inches in height and/or before weeds become well established.

HOW TO APPLY

Mix MBI-011 EP with water and apply as a foliar spray with hand-held equipment. Thorough coverage of weed foliage is necessary for control.

- Prepare a 6% solution of MBI-011 EP in a tank sprayer (see Table 3). Fill the tank sprayer approximately halfway with water, add the appropriate amount of MBI-011 EP, then add water to the fill line. Agitate prior to use

Table 3 – Home & Garden Spot Applications: Mixing Rates

Final Spray Volume	Amount of MBI-011 EP 1:16 ratio (6% dilution rate)*	Amount of Water
1 Quart	2 oz. (1/4 cup)	30 oz.
1/2 Gallon	4 oz. (1/2 cup)	60 oz.
1 Gallon	8 oz. (1 cup)	120 oz. (fill to 1-gallon mark)
2 Gallons	16 oz. (1 pint)	1 7/8 gallons (fill to 2-gallon mark)
4 Gallons	32 oz. (1 quart)	3 3/4 gallons (fill to 4-gallon mark)

*Percent MBI-011 EP in water

- Use a coarse spray (larger nozzle and droplet size) pattern to reduce drift to desirable plants. For best results, apply in sunny warm weather to actively growing young weeds. Avoid spraying on windy days.
- Spray weeds until foliage is thoroughly wet. Complete coverage is necessary for best results.
- If desirable plants are accidentally sprayed, rinse immediately with water.
- Apply when air is calm to prevent drift to desirable plants.
- To control top growth of dandelion and plantain in lawns, use a straight stream spray pattern and spray just the center growing point of the weed. Grass that is sprayed will also be burnt but regrowth will occur.
- Weeds that are mature, dormant or hardened due to moisture stress tend to be more tolerant to herbicide treatments. A repeat treatment of perennial regrowth and large weeds will be required.
- Only contacted vegetation will be affected. Rainfall or watering within 1 hour of application will reduce degree of control.

ATTENTION: Avoid all contact to desirable plants. Overspray or drift will injure contacted foliage. If sprayed on desirable plants, rinse off with water immediately.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool, dry place out of direct sunlight and away from heat sources. Keep container closed when not in use.

Pesticide Disposal and Container Handling: If empty: Nonrefillable container. Do not reuse or refill this container. Place in trash and offer for recycling if available.

If partially filled: Call your local solid waste agency or (800) 858-7378 (National Pesticide Information Center) for disposal instructions. Never place unused product down any indoor or outdoor drain.

MARRONE BIO INNOVATIONS WARRANTY

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Optional marketing claims:

Harvest aid

Burndown herbicide

Broad spectrum burndown herbicide

Broad spectrum herbicide

Broad spectrum burndown herbicide and preharvest dessicant

Broad spectrum burndown herbicide and harvest aid

For control and/or suppression of certain weeds

And to maintain bare ground on non-crop areas of farms, orchards, and vineyards